

# **Oracle® Fusion Applications Sales Implementation Guide**

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Oracle® Fusion Applications Sales Implementation Guide

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# Contents

## 1 Overview

Common Implementation: Overview .....	1-1
Getting Started with an Implementation: Overview .....	1-2
Manage Application Implementation .....	1-3

## 2 Common Applications Configuration: Define Synchronization of Users and Roles from LDAP

User and Role Synchronization: Explained .....	2-1
--	-----

## 3 Define Implementation Users

Initial Security Administration: Critical Choices .....	3-1
Initial Security Administration: Worked Example .....	3-3

## 4 Common Applications Configuration: Define Currencies and Currency Rates

Manage Currencies .....	4-1
Manage Conversion Rate Types .....	4-3
Manage Daily Rates .....	4-7

## 5 Common Applications Configuration: Define Enterprise Structures for Sales

Enterprise Structures: Overview .....	5-1
Enterprise Structures Business Process Model: Explained .....	5-3
Global Enterprise Configuration: Points to Consider .....	5-5
Modeling Your Enterprise Management Structure in Oracle Fusion: Example .....	5-5
Define Initial Configuration with the Enterprise Structures Configurator .....	5-8
Define Reference Data Sharing .....	5-33
Define Enterprise: Manage Enterprise HCM Information .....	5-40
Define Enterprise: Manage Locations .....	5-41
Define Geographies .....	5-43
Define Legal Jurisdictions and Authorities .....	5-57
Define Legal Entities: Manage Legal Entity .....	5-63
Define Legal Entities: Manage Legal Entity HCM Information .....	5-68
Define Legal Entities: Manage Legal Entity Tax Profile .....	5-73
Define Legal Entities: Define Legal Reporting Units .....	5-77
Define Chart of Accounts for Enterprise Structures: Manage Chart of Accounts .....	5-78
Define Chart of Accounts for Enterprise Structures: Manage Chart of Accounts Value Sets .....	5-89

Define Chart of Accounts for Enterprise Structures: Manage Account Hierarchies .....	5-93
Define Chart of Accounts for Enterprise Structures: Manage Accounting Calendars ....	5-111
Define Accounting Configurations of Enterprise Structures: Manage Primary or Secondary Ledgers .....	5-115
Define Accounting Configurations of Enterprise Structures: Specify Ledger Options ...	5-122
Define Accounting Configurations of Enterprise Structures: Manage Reporting	
Currencies .....	5-125
Define Business Units: Manage Service Provider Relationships .....	5-128
Define Business Units: Specify Customer Contract Management Business Function	
Properties .....	5-131
Define Business Units: Specify Supplier Contract Management Business Function	
Properties .....	5-134
Define Business Units: Assign Business Unit Business Function .....	5-136
Define Business Units: Manage Business Units .....	5-139
Define Workforce Structures: Manage Enterprise HCM Information .....	5-140
Define Workforce Structures: Manage Locations .....	5-140
Define Workforce Structures: Manage Divisions .....	5-142
Define Workforce Structures: Manage Departments .....	5-145
Define Workforce Structures: FAQs for Manage Job Families .....	5-148
Define Workforce Structures: Manage Job .....	5-148
Define Workforce Structures: Manage Person Search Relevance Profile Option Values .....	5-150
Define Facilities: Manage Facility Shifts, Workday Patterns, and Schedules .....	5-151
Define Facilities: Manage Inventory Organizations .....	5-154
Define Facilities: Manage Item Organizations .....	5-159

## 6 Common Applications Configuration: Define Social Networking

Define Social Networking .....	6-1
Group Spaces in Oracle Fusion CRM: Highlights .....	6-3
FAQs for Define Social Networking .....	6-12

## 7 Common Applications Configuration: Define Workforce Profiles

Profile Management: Explained .....	7-1
Oracle Fusion Profile Management Components: How They Work Together .....	7-2
Oracle Fusion Profile Management, Performance Management, Goal Management, and Talent Review: How They Work Together .....	7-3
Define Talent Profile Settings .....	7-4
Define Talent Profile Content .....	7-10
Define Talent Profiles .....	7-20

## 8 Common Applications Configuration: Define Security for CRM

Security Tasks: Highlights .....	8-1
Defining Security After Enterprise Setup: Points to Consider .....	8-4
Security Tasks and Oracle Fusion Applications: How They Fit Together .....	8-8
Security Tasks: Overview .....	8-11

Define Data Security for CRM .....	8-15
Define Users for CRM .....	8-34

## 9 Define Automated Governance, Risk, and Performance Controls

Segregation of Duties: Explained .....	9-1
Segregation of Duties in the Security Reference Implementation: Explained .....	9-2
Defining Segregation of Duties Policies: Points To Consider .....	9-4
Managing Segregation of Duties Risks and Violations: Critical Choices .....	9-6
Role Provisioning and Segregation of Duties: How They Work Together .....	9-8

## 10 Define Help Configuration

Define Help Configuration: Overview .....	10-1
Set Help Options .....	10-1
FAQs for Assign Help Text Administration Duty .....	10-4
Manage Help Security Groups .....	10-4
Help File Customization .....	10-5
Embedded Help Customization .....	10-16

## 11 Define Application Toolkit Configuration

Define Application Toolkit Configuration: Overview .....	11-1
Map Reports to Work Areas .....	11-1
Set Watchlist Options .....	11-3

## 12 Define WebLogic Communication Services Configuration

Click to Dial: Explained .....	12-1
Click-to-Dial: Top Tasks .....	12-4
Configuring PSTN Gateway Address Using Topology Manager: Worked Example .....	12-5

## 13 Maintain Common Reference Objects

Maintain Common Reference Objects: Overview .....	13-1
Define Application Taxonomy .....	13-1
Define Reference Data Sharing .....	13-4
Define Lookups .....	13-8
Manage Messages .....	13-15
Define ISO Reference Data .....	13-17
Manage Data Security Policies .....	13-21
Define Document Sequences .....	13-30
Define Trees .....	13-34
Define Profile Options .....	13-49
Define Flexfields .....	13-58
Define Attachments .....	13-101
Set Activity Stream Options .....	13-105
Manage Menu Customizations .....	13-105

Manage Applications Core Common Reference Objects: Manage Applications Core Messages .....	13-106
Manage Applications Core Common Reference Objects: Manage Applications Core Administrator Profile Values .....	13-107

## **14 Common Customer Data Management Configuration: Define Source Systems**

Source Systems: Explained .....	14-1
Source System Entities: Explained .....	14-2
FAQs for Define Source Systems .....	14-2

## **15 Common Customer Data Management Configuration: Define Party Usages**

Party Usage Explained .....	15-1
Party Usage Filter Rules Explained .....	15-2
FAQs for Define Party Usages .....	15-2

## **16 Common Customer Data Management Configuration: Define Identifiers**

Identifier Types: Explained .....	16-1
-----------------------------------	------

## **17 Common Customer Data Management Configuration: Define Classifications**

Classifications: Explained .....	17-1
FAQs for Define Classifications .....	17-2

## **18 Common Customer Data Management Configuration: Define Data Formats**

Creating an Address Style Format: Worked Example .....	18-1
Creating a Name Style Format: Worked Example .....	18-3
FAQs for Define Data Formats .....	18-4

## **19 Common CRM Configuration: Define Resource Information**

Manage Resource Note Types .....	19-1
Define Resource Information .....	19-2
Define Resource Organization Information .....	19-5
Define Resource Role Information .....	19-6

## **20 Common CRM Configuration: Define Sales Catalogs**

Define Sales Catalogs .....	20-1
FAQs for Define Sales Catalogs .....	20-8
Manage Product Groups .....	20-9

## **21 Common CRM Configuration: Define File-Based Data Import**

Define File-Based Data Import .....	21-1
<b>22 Common CRM Configuration: Manage Bulk Data Export</b>	
Using Data Export .....	22-1
<b>23 Common CRM Configuration: Define Sales Prediction Configuration</b>	
Define Sales Prediction Configuration .....	23-1
Manage Recommendations Configuration Parameters: Explained .....	23-1
Select Model Entities and Attributes .....	23-2
<b>24 Common CRM Configuration: Define Outlook Integration</b>	
Define Outlook Integration .....	24-1
FAQs for Define Outlook Integration .....	24-19
<b>25 Common CRM Configuration: Manage Mobile Sales Application Configuration</b>	
Manage Mobile Sales Application Configuration .....	25-1
FAQs for Manage Mobile Sales Application Configuration .....	25-5
How can I disable the synchronization of Calendar entries and Contacts to a smartphone .....	25-6
How can I change the default filter criteria for contacts, customers, and opportunities that are displayed on mobile devices, such as a Blackberry or iPhone .....	25-6
How do I install the Oracle Fusion Mobile Sales Blackberry Application .....	25-6
How can I add an Oracle Business Intelligence report to Oracle Fusion Mobile Sales .....	25-6
How can I display a list of Products for a Revenue Item .....	25-6
How can I set up the automatic saving of passwords on users' smartphones .....	25-6
What happens if I customize an Oracle Business Intelligence report that is displayed by Oracle Fusion Mobile Sales .....	25-6
Why can't I access Oracle Fusion CRM Mobile Sales .....	25-6
<b>26 Common CRM Configuration: Manage Tablet Application Configuration</b>	
Manage Tablet Application Configuration .....	26-1
<b>27 Common CRM Configuration: Set Up Customer Center</b>	
Set Up Customer Center .....	27-1
Managing Contacts: Explained .....	27-5
Managing Contact Preference Information: Explained .....	27-6
Customizing Oracle Fusion CRM Pages Using Oracle Composer: Explained .....	27-9
Customizing Oracle Fusion Customer Center Pages: Explained .....	27-11
FAQs for Set Up Customer Center .....	27-15

Manage Customer Center Task Templates .....	27-18
Configuring Assignment Manager: Critical Choices .....	27-19
FAQs for Manage Customer Center Task Templates .....	27-21
Manage Customer Center Note Type Mapping .....	27-21
Manage Customer Center Assignment Objects .....	27-22
FAQs for Manage Customer Center Assignment Objects .....	27-34
Manage Customer Center Assessment Templates .....	27-35
FAQs for Manage Customer Center Assessment Templates .....	27-42

## 28 Common Sales Configuration: Define Notes, Calendar, Appointments, and Interactions

Define Sales Notes .....	28-1
Manage Calendar Profile Option .....	28-2
Define Sales Interactions .....	28-3

## 29 Define and Maintain Opportunities

Define and Maintain Opportunities .....	29-1
Benefits of a Dedicated Close Opportunity Flow: Explained .....	29-2
Summary of Opportunity Business Logic: Explained .....	29-2
Setting up Opportunity Revenue: Points to Consider .....	29-5
Setting up Revenue for Forecasting: Points to Consider .....	29-7
Sales Revenue and Territory Forecast Metrics: Explained .....	29-9
Revenue Line Syncing with Opportunity Win Probability: Example .....	29-10
Syncing Behavior of Opportunity and Revenue Line Attributes: Explained .....	29-10
Setting up Forecast Override and Criteria for Opportunities: Explained .....	29-13
Default Sales Channel in Opportunities: Explained .....	29-15
Deep Links: Explained .....	29-16
Integrating Oracle RightNow CX with Oracle Fusion Opportunity Management: Explained .....	29-17
Configure Opportunity Assessments .....	29-18
FAQs for Configure Opportunity Assessments .....	29-24
Define Sales Methods .....	29-25
Manage Opportunity Profile Options .....	29-27
Configure Customer Center for Opportunity Management .....	29-29
Configure Opportunity Assignment .....	29-31
Configuring Assignment Manager: Critical Choices .....	29-39
Creating Assignment Mappings: Examples .....	29-41
Creating Assignment Rules: Examples .....	29-44
Using Territory-Based Assignment with Rule-Based Filtering: Example .....	29-46
Disposition Logic: How It Is Processed .....	29-48
FAQs for Configure Opportunity Assignment .....	29-49
How can I manually add territories to an opportunity .....	29-52
Manage Opportunity Management Batch Processes .....	29-52
Use Sales Coach for Guided Selling .....	29-54
FAQs for Sales Coach .....	29-55

## 30 Define Territory Management Configuration

Territory Components: How They Work Together .....	30-1
Mapping Sets: Explained .....	30-2
Multistep assignment processing: Explained .....	30-2
Define Territory Management Dimensions .....	30-3
Dimension Parameters: Explained .....	30-7
Populating Dimension Members: Explained .....	30-7
Using Territory Dimensions: Examples .....	30-9
FAQs for Manage Territory Management Synchronization .....	30-10

### **31 Define Sales Quotas**

Define Sales Quotas .....	31-1
FAQs for Define Sales Quotas .....	31-6

### **32 Define References and Competitors**

Define References and Competitors .....	32-1
FAQs for Define References and Competitors .....	32-3

### **33 Define Sales Forecasting Configuration**

Define Sales Forecasting Configuration .....	33-1
Select Forecasting Options .....	33-3
FAQs for Forecasting Options .....	33-6
Run Refresh Forecast Process .....	33-8

### **34 Define Lead Management**

How Lead Components Fit Together .....	34-1
Configure Assignment Manager for Lead Processing .....	34-3
Configure Assessment Reference Data for Sales Leads .....	34-32
Configure Notes for Sales Leads .....	34-41
Configure Tasks for Sales Leads .....	34-42
Configure Sales Leads .....	34-44

### **35 Define Transactional Business Intelligence Configuration**

Define Transactional Business Intelligence Configuration: Highlights .....	35-1
--	------

### **36 Define Extensions for Sales**

Define Custom Enterprise Scheduler Jobs .....	36-1
Managing List of Values Sources: Highlights .....	36-2
Customization and Sandboxes .....	36-3
Customizing Oracle Fusion CRM Pages Using Oracle Composer: Explained .....	36-52
Customizing Oracle Fusion Customer Center Pages: Explained .....	36-55

Customizing Partner Management Pages Using Oracle Composer: Explained .....	36-59
FAQs for Customization and Sandboxes .....	36-61

### **37 Define Sales Partners**

Define Sales Partners .....	37-1
Partner Assignment to Opportunities: Explained .....	37-2
Manage Partner Accounts and Programs .....	37-3
Creating Partner User Accounts:Explained .....	37-3
Automatic Role Provisioning:Explained .....	37-4
Enabling the Link to Register an Existing Account as a Partner: Worked Example .....	37-4
Associating a Terms Template to a Partner Program:Worked Example .....	37-5
Enabling Partner Programs: Points to Consider .....	37-6
Customizing Terms and Conditions Link: Worked Example .....	37-7
Channel Program Manager Territory and Partner Territory : How They Work Together .....	37-7
.....	
Manage Default Attributes for Partner Opportunities .....	37-8
Partner Lead Attributes in Opportunities: Explained .....	37-9
Manage Partner Budgets .....	37-10
FAQs for Manage Partner Budgets .....	37-11
Manage Default Attributes for Partner Opportunities .....	37-11

### **38 Importing and Exporting Setup Data**

Importing and Exporting Setup Data .....	38-1
Exporting and Importing Setup Data: Explained .....	38-1
Moving Common Reference Objects .....	38-2

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# Preface

This Preface introduces the guides, online help, and other information sources available to help you more effectively use Oracle Fusion Applications.

## Oracle Fusion Applications Help

You can access Oracle Fusion Applications Help for the current page, section, activity, or task by clicking the help icon. The following figure depicts the help icon.



You can add custom help files to replace or supplement the provided content. Each release update includes new help content to ensure you have access to the latest information. Patching does not affect your custom help content.

## Oracle Fusion Applications Guides

Oracle Fusion Applications guides are a structured collection of the help topics, examples, and FAQs from the help system packaged for easy download and offline reference, and sequenced to facilitate learning. You can access the guides from the **Guides** menu in the global area at the top of Oracle Fusion Applications Help pages.

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### Note

The **Guides** menu also provides access to the business process models on which Oracle Fusion Applications is based.

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Guides are designed for specific audiences:

- **User Guides** address the tasks in one or more business processes. They are intended for users who perform these tasks, and managers looking for an overview of the business processes. They are organized by the business process activities and tasks.
- **Implementation Guides** address the tasks required to set up an offering, or selected features of an offering. They are intended for implementors. They are organized to follow the task list sequence of the offerings, as displayed within the Setup and Maintenance work area provided by Oracle Fusion Functional Setup Manager.
- **Concept Guides** explain the key concepts and decisions for a specific area of functionality. They are intended for decision makers, such as chief financial officers, financial analysts, and implementation consultants. They are organized by the logical flow of features and functions.

- **Security Reference Manuals** describe the predefined data that is included in the security reference implementation for one offering. They are intended for implementors, security administrators, and auditors. They are organized by role.

These guides cover specific business processes and offerings. Common areas are addressed in the guides listed in the following table.

Guide	Intended Audience	Purpose
Common User Guide	All users	Explains tasks performed by most users.
Common Implementation Guide	Implementors	Explains tasks within the Define Common Applications Configuration task list, which is included in all offerings.
Information Technology Management, Implement Applications Guide	Implementors	Explains how to use Oracle Fusion Functional Setup Manager to plan, manage, and track your implementation projects, migrate setup data, and validate implementations.
Technical Guides	System administrators, application developers, and technical members of implementation teams	Explain how to install, patch, administer, and customize Oracle Fusion Applications.

For guides that are not available from the Guides menu, go to Oracle Technology Network at <http://www.oracle.com/technetwork/indexes/documentation>.

## Other Information Sources

### My Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Use the My Oracle Support Knowledge Browser to find documents for a product area. You can search for release-specific information, such as patches, alerts, white papers, and troubleshooting tips. Other services include health checks, guided lifecycle advice, and direct contact with industry experts through the My Oracle Support Community.

### Oracle Enterprise Repository for Oracle Fusion Applications

Oracle Enterprise Repository for Oracle Fusion Applications provides visibility into service-oriented architecture assets to help you manage the lifecycle of your software from planning through implementation, testing, production,

and changes. In Oracle Fusion Applications, you can use the Oracle Enterprise Repository for Oracle Fusion Applications at <http://fusionappsoer.oracle.com> for:

- Technical information about integrating with other applications, including services, operations, composites, events, and integration tables. The classification scheme shows the scenarios in which you use the assets, and includes diagrams, schematics, and links to other technical documentation.
- Publishing other technical information such as reusable components, policies, architecture diagrams, and topology diagrams.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/us/corporate/accessibility/index.html>.

## Comments and Suggestions

Your comments are important to us. We encourage you to send us feedback about Oracle Fusion Applications Help and guides. Please send your suggestions to [oracle\\_fusion\\_applications\\_help\\_ww\\_grp@oracle.com](mailto:oracle_fusion_applications_help_ww_grp@oracle.com). You can use the **Send Feedback to Oracle** link in the footer of Oracle Fusion Applications Help.



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# Overview

## Common Implementation: Overview

Common implementation involves accessing tasks that are available in multiple offerings, or that apply to multiple products and product families. The Define Common Applications Configuration task list and other activities include these common setup and implementation tasks.

You can find other information in support of common implementation in the Oracle Fusion Applications Concepts Guide.

In addition, you can customize and extend applications using various tools. For more information, see the Oracle Fusion Applications Extensibility Guide.

### Define Common Applications Configuration Task List

Use the Define Common Applications Configuration task list to set up and administer an implementation of behaviors across offerings.

Most Oracle Fusion Applications offerings include the Define Common Applications Configuration task list for implementing what is common in multiple or all Oracle Fusion applications. The task lists and tasks within Define Common Applications Configuration can be present in all offerings, some, or just a single offering.

Common implementation includes such tasks as setting up security, defining enterprise structures, configuring Oracle Fusion Applications Help, and setting options. Many of the common implementation tasks involve configuring reference objects provided by Oracle Fusion Middleware Extensions for Applications (Applications Core), such as messages, flexfields, document sequences, and profile options. Some common implementation tasks involve configuring features provided by Oracle Application Toolkit (ATK), such as the Watchlist. Other common implementation tasks involve Oracle Fusion Applications products such as the Assign Balancing Segment Values to Ledger task in Oracle Fusion General Ledger.

### Other Common Setup and Maintenance Tasks

Other setup and maintenance tasks exist in multiple offerings but not in the Define Common Applications Configuration task list. Use these other task lists to

define an Oracle Fusion Transactional Business Intelligence configuration, and to define extensions such as custom Oracle Enterprise Scheduler jobs.

You can access common implementation tasks and task lists by starting in the Setup and Maintenance Overview page and searching for task lists by name. Setup and Maintenance is available from the Administration menu to users provisioned with appropriate roles. The Administration menu provides access to other tasks, such as for customization.

## Getting Started with an Implementation: Overview

To start an Oracle Fusion Applications implementation, you must setup one or more initial users using the super user that was created during installation and provisioning of the Oracle Fusion Applications environment. Because Oracle Fusion Applications is secure as delivered, the process of enabling the necessary setup access for initial users requires several specialized steps when getting started with an implementation.

The following high level steps are required for starting an implementation.

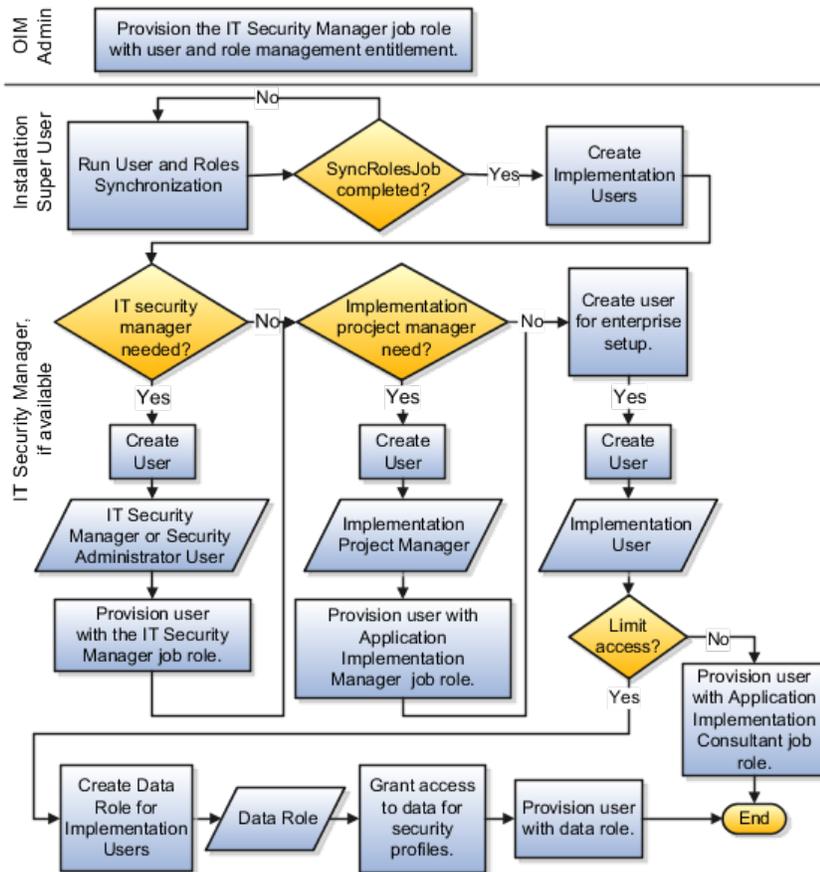
1. As the Oracle Identity Management Administration user, provision the IT Security Manager job role with roles for user and role management.

This step enables the super user account, which is provisioned with the IT Security Manager job role, to create implementation users.

2. As the Oracle Fusion Applications installation super user, perform the following tasks once you have selected an offering to implement and generated the setup tasks needed to implement the offering.
  - a. Synchronize users and roles in the Lightweight Directory Access Protocol (LDAP) store with HCM user management by using the Run User and Roles Synchronization Process task.
  - b. Create an IT security manager user by using the Create Implementation Users task.
  - c. Provision the IT security manager with the IT Security Manager role by using the Provision Roles to Implementation Users task.
3. As the newly created IT security manager user, sign in to Oracle Fusion Applications and set up at least one implementation user for setting up enterprise structures.
  - a. Create an implementation user by using the Create Implementation Users task.
  - b. Provision the implementation user with the Application Implementation Manager job role or the Application Implementation Consultant job role by using the Provision Roles to Implementation Users task. The Application Implementation Consultant job role inherits from all product-specific application administrators and entitles the necessary View All access to all secured object.
  - c. Optionally, create a data role for an implementation user who needs only the limited access of a product-specific Application Administrator

by using the Create Data Role for Implementation Users. Then assign the resulting data role to the implementation user by using the Provision Roles to Implementation Users task.

The figure shows the task flow from provisioning the IT Security Manager job role with the user and role management entitlement to creating and provisioning implementation users for enterprise setup.



## Manage Application Implementation

### Manage Application Implementation: Overview

The Manage Applications Implementation business process enables rapid and efficient planning, configuration, implementation, deployment, and ongoing maintenance of Oracle Fusion applications through self-service administration.

The Setup and Maintenance work area offers you the following benefits:

- Prepackaged lists of implementation tasks

Task lists can be easily configured and extended to better fit with business requirements. Auto-generated, sequential task lists include prerequisites

and address dependencies to give full visibility to end-to-end setup requirements of Oracle Fusion applications.

- Rapid start

Specific implementations can become templates to facilitate reuse and rapid-start of consistent Oracle Fusion applications setup across many instances.

- Comprehensive reporting

A set of built-in reports helps to analyze, validate and audit configurations, implementations, and setup data of Oracle Fusion applications.

With Oracle Fusion Functional Setup Manager you can:

- Learn about and analyze implementation requirements.
- Configure Oracle Fusion applications to match your business needs.
- Get complete visibility to setup requirements through guided, sequential task lists downloadable into Excel for project planning.
- Enter setup data through easy-to-use user interfaces available directly from the task lists.
- Export and import data from one instance to another for rapid setup.
- Validate setup by reviewing setup data reports.
- Implement all Oracle Fusion applications through a standard and consistent process.

There are several documentation resources available for learning how to configure Oracle Fusion Applications.

- Functional Setup Manager Developer's Guide
- Common Implementation Guide
- Customer Data Management Implementation Guide
- Enterprise Contracts Implementation Guide
- Marketing Implementation Guide
- Sales Implementation Guide
- Fusion Accounting Hub Implementation Guide
- Financials Implementation Guide
- Compensation Management Implementation Guide
- Workforce Deployment Implementation Guide
- Workforce Development Implementation Guide
- Incentive Compensation Implementation Guide
- Procurement Implementation Guide

- P6 EPPM Administrator's Guide for an Oracle Database
- P6 EPPM Administrator's Guide for Microsoft SQL Server Database

## Implementation Projects: Explained

An implementation project is the list of setup tasks you need to complete to implement selected offerings and options. You create a project by selecting the offerings and options you want to implement together. You manage the project as a unit throughout the implementation lifecycle. You can assign these tasks to users and track their completion using the included project management tools.

### Maintaining Setup Data

You can also create an implementation project to maintain the setup of specific business processes and activities. In this case, you select specific setup task lists and tasks

### Exporting and Importing

Implementation projects are also the foundation for setup export and import. You use them to identify which business objects, and consequently setup data, you will export or import and in which order.

### Selecting Offerings

When creating an implementation project you see the list of offerings and options that are configured for implementation. Implementation managers specify which of those offerings and options to include in an implementation project. There are no hard and fast rules for how many offerings you should include in one implementation project. The implementation manager should decide based on how they plan to manage their implementations. For example, if you will implement and deploy different offerings at different times, then having separate implementation projects will make it easier to manage the implementation life cycles. Furthermore, the more offerings you included in an implementation project, the bigger the generated task list will be. This is because the implementation task list includes all setup tasks needed to implement all included offerings. Alternatively, segmenting into multiple implementation projects makes the process easier to manage.

## Offerings: Explained

Offerings are application solution sets representing one or more business processes and activities that you typically provision and implement as a unit. They are, therefore, the primary drivers of functional setup of Oracle Fusion applications. Some of the examples of offerings are Financials, Procurement, Sales, Marketing, Order Orchestration, and Workforce Deployment. An offering may have one or more options or feature choices.

### Implementation Task Lists

The configuration of the offerings will determine how the list of setup tasks is generated during the implementation phase. Only the setup tasks needed

to implement the selected offerings, options and features will be included in the task list, giving you a targeted, clutter-free task list necessary to meet your implementation requirements.

### **Enabling Offerings**

Offerings and their options are presented in an expandable and collapsible hierarchy to facilitate progressive decision making when specifying whether or not an enterprise plans to implement them. An offering or its options can either be selected or not be selected for implementation. Implementation managers decide which offerings to enable.

### **Provisioning Offerings**

The Provisioned column on the Configure Offerings page shows whether or not an offering is provisioned. While you are not prevented from configuring offerings that have not been provisioned, ultimately the users are not able to perform the tasks needed to enter setup data for those offerings until appropriate enterprise applications (Java EE applications) are provisioned and their location (end point URLs) is registered.

## **Options: Explained**

Each offering in general includes a set of standard functionality and a set of optional modules, which are called options. For example, in addition to standard Opportunity Management, the Sales offering includes optional functionality such as Sales Catalog, Sales Forecasting, Sales Prediction Engine, and Outlook Integration. These optional functions may not be relevant to all application implementations. Because these are subprocesses within an offering, you do not always implement options that are not core to the standard transactions of the offering.

## **Feature Choices: Explained**

Offerings include optional or alternative business rules or processes called feature choices. You make feature selections according to your business requirements to get the best fit with the offering. If the selected offerings and options have dependent features then those features are applicable when you implement the corresponding offering or option. In general, the features are set with a default configuration based on their typical usage in most implementations. However, you should always review the available feature choices for their selected offerings and options and configure them as appropriate for the implementation.

You can configure feature choices in three different ways:

### **Yes or No**

If a feature can either be applicable or not be applicable to an implementation, a single checkbox is presented for selection. Check or uncheck to specify yes or no respectively.

### **Single Select**

If a feature has multiple choices but only one can be applicable to an implementation, multiple choices are presented as radio buttons. You can turn on only one of those choices.

### **Multi-Select**

If the feature has multiple choices but one or more can be applicable to an implementation then all choices are presented with a checkbox. Select all that apply by checking the appropriate choices.



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# Common Applications Configuration: Define Synchronization of Users and Roles from LDAP

## User and Role Synchronization: Explained

Oracle Identity Management (OIM) maintains Lightweight Directory Access Protocol (LDAP) user accounts for users of Oracle Fusion applications. OIM also stores the definitions of abstract, job, and data roles and holds information about roles provisioned to users. During implementation, any existing information about users, roles, and roles provisioned to users must be copied from the LDAP directory to the Oracle Fusion Applications tables. Once the Oracle Fusion Applications tables are initialized with this information, it is maintained automatically. To perform the initialization, you run the process Retrieve Latest LDAP Changes.

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### Note

For security and audit best practice, implementation users have person records and appropriate role-based security access. So that appropriate roles can be assigned to implementation users, you must run the process Retrieve Latest LDAP Changes before you create implementation users.

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During initial implementation, the installation super user performs the task Run User and Role Synchronization Process to run the Retrieve Latest LDAP Changes process.

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### Tip

The user name and password of the installation super user are created during installation provisioning of Oracle Fusion Applications. For details of the user name and password, contact your system administrator or the person who installed Oracle Fusion Applications.

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## Define Implementation Users

### Initial Security Administration: Critical Choices

After installation and provisioning, and before setting up enterprise structures and implementing projects, you must establish required entitlement for the super user account and at least one implementation user to proceed with the implementation. Once initial enterprise structure setup is complete, additional users may be created through processes available in Human Capital Management (HCM).

Initial security administration consists of the following.

- Preparing the IT Security Manager job role
- Synchronizing users and roles from Lightweight Directory Access Protocol (LDAP) with HCM
- Creating implementation users
- Optionally creating data roles for implementation users
- Provisioning implementation users with roles

Once the first implementation project begins and the enterprise work structure is set up, use standard user and security management processes such as the Manage Users task to create and manage additional users. Do not use the Create Implementation Users task after your enterprise has been set up.

#### Preparing the IT Security Manager Job Role

Initially the super user is not provisioned to manage users and roles.

You must add the following Oracle Identity Management (OIM) roles to the IT Security Manager job role's role hierarchy to enable the super user to create one or more initial implementation users.

- Identity User Administrators
- Role Administrators

Additionally, you must assign the Xellerate Users organization to the IT Security Manager role.

## Synchronizing Users and Roles from LDAP

After configuring an offering and setting up the task lists for implementation, the Run User and Roles Synchronization Process task is available to the super user for synchronizing users and roles in the LDAP store with Oracle Fusion Human Capital Management (HCM).

## Defining Initial Implementation Users

The super user is provisioned with roles that provide broad access to Oracle Fusion Middleware and Oracle Fusion Applications administration, and is not suitable as an implementation user in most enterprises. The super user should define at least one implementation user, which consists of creating the user account and provisioning it with at least the Application Implementation Consultant and Application Implementation Manager job roles.

As a security guideline, define an IT security manager user who in turn defines one or more implementation users to set up enterprise structures. The IT security manager users can provision the implementation user with the Application Implementation Consultant role, which entitles access to all enterprise structures. Or the IT security manager can create a data role that restricts access to enterprise structures of a specific product and provisioning that role.

Depending on the size of your implementation team, you may only need a single implementation user for security administration, implementation project management, enterprise structures setup, and application implementation. That single user must then be provisioned with all indicated roles, and therefore broad access.

## Creating Implementation Users

The super user creates one or more implementation users by performing the Create Implementation Users task.

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### Note

This initial implementation user is a user account created in Oracle Identity Management only, specifically for setting up enterprise structures, and is not related to a real person or identity such as a user defined in HCM.

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## Creating Data Roles for Implementation Users

As an alternative to provisioning an implementation user with the Application Implementation Consultant role to access all enterprise structures, you may need implementation users with access restricted to enterprise structures for specific products. In this case, use the Create Data Roles for Implementation Users task to create a data role based on a job role with less broad access, such as the HCM Application Administrator job role.

## Provisioning Roles to Implementation Users

After creating an implementation user, you must provision the user with one or more roles by performing the Provision Roles to Implementation Users task.

For example, assign a role to the implementation user that provides the access necessary for setting up the enterprise. Depending on need, provision to the implementation user the predefined Applications Implementation Consultant role or a product family-specific administrator data role, such as a data role based on the predefined Financials Applications Administrator.

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**Caution**

The Application Implementation Consultant has broad access. It is a very useful role for experimentation or setting up a pilot environment, but may not be suitable for implementation users in a full implementation project.

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## Initial Security Administration: Worked Example

This example illustrates initial security administration after having installed and provisioned an Oracle Fusion Applications environment.

In Oracle Fusion Applications, you manage users and security through Oracle Fusion Human Capital Management (HCM) user management flows, which are included in each of the offering task lists. However, the HCM task flows require that enterprise structures have been set up, and yet to add users who can set up enterprise structures you need to have set up HCM. Therefore, you need to create one or more initial implementation users who are responsible for providing the following.

- Users and their applications security management
- Implementation project management
- Initial enterprise structures management

The following table summarizes key decisions for this scenario.

Decision	In this Example
How to sign in to Oracle Fusion Applications for the first time	Use the super user account that was created when installing and provisioning Oracle Fusion Applications (for example, FAADMIN).
How to ensure that the roles and users in the Lightweight Directory Access Protocol (LDAP) store match what is available for selection when defining implementation users	Perform the Run User and Roles Synchronization Process task.
How to create a first implementation user	Prepare the IT Security Manager job role for user and role management so the super user and any other user provisioned with the IT Security Manager job role can manage users and roles.
How to establish security administration users	Define an IT security manager user provisioned with the IT Security Manager job role.
How to establish an implementation user with access to set up enterprise structures	Define an implementation user provisioned with the Application Implementation Consultant job role.

You create an initial implementation user by performing the following tasks.

1. The Oracle Identity Management System Administrator user provisions the IT Security Manager job role with roles for user and role management.

2. The Oracle Fusion Applications super user synchronizes LDAP users with HCM user management so that users can be provisioned with roles through HCM.
3. The Oracle Fusion Applications super user performs the Create Implementation Users task to create one or more IT security manager and administrator users provisioned with security administrative entitlement.
4. The IT Security Manager user signs in to Oracle Fusion Applications and performs the Create Implementation Users task to create implementation managers and users.
5. The IT Security Manager user provisions implementation users for enterprise structure setup.

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**Note**

The following tasks assume that the super user has configured an offering and set up task lists. When not following a task flow within an activity, you can find tasks in **Navigator > Tools > Setup and Maintenance > All Tasks** . Search for the task and click its **Go to Task** icon in the search results.

---

## Preparing the IT Security Manager Role

The super user that was created when installing and provisioning Oracle Fusion Applications (for example, FAADMIN) has all necessary access for implementing Oracle Fusion Applications and administering security. This access is provided by the following roles:

- Application Implementation Consultant
- IT Security Manager

Neither of these roles provides access needed for creating and managing Oracle Fusion Applications users. Therefore, you must add the following two OIM roles to the IT Security Manager role:

- Identity User Administrators
- Role Administrators

The following procedure is prerequisite to an IT security manager or administrator creating an initial one or more implementation users.

1. While signed into Oracle Identity Manager as the OIM System Administrator user, click the **Administration** link in the upper right of the Oracle Identity Manager.

This accesses the Welcome to Identity Manager Delegated Administration menu.

2. In the Roles list of tasks, click **Advanced Search - Roles**. Search for the Identity Users Administrators role by entering the role name in **Display Name** and clicking **Search**.

In the Search Results, click the role's Display Name.

3. On the Hierarchy tab, select **Inherits From** and click **Add**.

4. In the Add Parent Role to: IDENTITY USER ADMINISTRATORS window, select the role category: Common - Job Roles and add the IT Security Manager.

Click the arrow icon to show the list of available roles. Select IT Security Manager and move it to the **Roles to Add** list. Click **Save**.

5. Search for the Role Administrators role, and repeat steps 1 to 4 to add that role to the IT Security Manager role's role inheritance.
6. Assign the IT Security Manager role to the Xellerate Users organization.
  - a. In the Welcome to Identity Manager Delegated Administration menu (see step 1, above), in the Organizations list of tasks, click **Advanced Search - Organizations**.
  - b. Search for the Xellerate Users organization by entering Xellerate Users in **Display Name** and clicking **Search**.
  - c. In the Search Results, click the organization's Display Name. The Xellerate Users page appears.
  - d. Click the **Administrative Roles** link in the row of links above the Xellerate Users.
  - e. In **Filter By Role Name** of the Details window, enter the following string:

\*IT\_SECURITY\_MANAGER\*

Click **Find**.

- f. Enable Read, Write, Delete, and Assign.
- g. Click **Assign**.
- h. Click **Confirm**.

## Synchronizing Users and Roles from LDAP

Lightweight Directory Access Protocol (LDAP) must be synchronized with HCM user management so that users can be provisioned with roles through HCM.

1. Sign in to Oracle Fusion Applications using the super user's user name (for example FAADMIN) and password.

If you do not know the super user name and password, check with your system administrator or the person who installed Oracle Fusion Applications. For more information about account creation in Oracle Fusion Applications provisioning, see the Oracle Fusion Applications Installation Guide.

2. Perform the Run User and Roles Synchronization Process task by clicking **Submit** in the Process Details page.

The SyncRolesJob process takes some time to complete the first time it is run.

3. Monitor completion of the SyncRolesJob process from **Navigator > Tools > Scheduled Processes** before continuing with creating implementation users.

## Defining an IT Security Manager User

The super user has broad access to Oracle Fusion Middleware and Oracle Fusion Applications administration. Due to this broad access, your enterprise needs users dedicated to managing users and applications security, such as an IT security manager user.

1. While signed in as the Oracle Fusion Applications super user, access the Create Implementation Users task and create an IT security manager.

The Oracle Identity Manager appears.

2. Click **Create User**.

For details, see the Creating Users section in the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

3. Provide the following attributes:

Attribute	Value	Example
Last name	<any valid string>	Smith
Organization	Xellerate Users	N/A
User type	Non Worker	N/A
User login	<any valid string>	IT_SECURITY_MANAGER
Login password	<any valid string>	SeKur1TyPa\$\$w0Rd

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### Note

In Oracle Fusion Applications, an implementation user is a user account created in OIM only, specifically for implementation tasks, and is not related to a real person or identity such as a user defined in HCM.

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4. Click **Save**.
5. On the Roles tab in the IT\_SECURITY\_MANAGER user creation task flow, click **Assign**.
6. In the Add Role window, search for the IT Security Manager role and click **Add**.

## Defining an Implementation User for Enterprise Structures Setup

1. Sign in to Oracle Fusion Applications using the IT security manager user's name and password.
2. Create and provision an implementation user using the same task flow as for creating the IT security manager user in the previous section, except provision the following roles.
  - Application Implementation Manager
  - Application Implementation Consultant

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**Note**

For an implementation to begin, at least one user must be provisioned with the Application Implementation Manager role, and another or the same user must be provisioned with the Application Implementation Consultant role. The Application Implementation Consultant has broad access too set up all enterprise structures.

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# Common Applications Configuration: Define Currencies and Currency Rates

## Manage Currencies

### Defining Currencies: Points to Consider

When creating or editing currencies, consider these points relevant to entering the currency code, date range, or symbol for the currency.

#### Currency Codes

You cannot change a currency code after you enable the currency, even if you later disable that currency.

#### Date Ranges

Users can enter transactions denominated in the currency only for the dates within the specified range. If you do not enter a start date, then the currency is valid immediately. If you do not enter an end date, then the currency is valid indefinitely.

#### Symbols

Even if you enter a symbol for a currency, the symbol is not always displayed when an amount is displayed in this currency. Some applications use currency symbols when displaying amounts. Others, like Oracle Fusion General Ledger, do not.

### Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date.

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**Note**

If you need to use a different currency code for Euro, you can disable the predefined Euro currency and create a new one.

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**Derivation Type**

The **Euro currency** derivation type is used only for the Euro, and the **Euro derived** derivation type identifies national currencies of EMU member states. All other currencies do not have derivation types.

**Derivation Factor**

The derivation factor is the fixed conversion rate by which you multiply one Euro to derive the equivalent EMU currency amount. The Euro currency itself should not have a derivation factor.

**Derivation Effective Date**

The derivation effective date is the date on which the relationship between the EMU currency and the Euro begins.

**FAQs for Manage Currencies****When do I create or enable currencies?**

Create currencies to use, for example for reporting purposes, if they are not already provided. All currencies from the International Organization for Standardization (ISO) 4217 standard are provided.

Enable any currency other than USD for use in Oracle Fusion Applications, for example for displaying monetary amounts, assigning to sets of books, entering transactions, and recording balances. Only USD is enabled by default.

**What's the difference between precision, extended precision, and minimum accountable unit for a currency?**

Precision is the number of digits to the right of the decimal point used in regular currency transactions. Extended precision is the number of digits to the right of the decimal point used in calculations for this currency, and it must be greater than or equal to the standard precision. For example, USD would have 2 for precision because amounts are transacted as such, for example \$1.00. For calculations, for example adding USD amounts, you might want the application to be more precise than two decimal digits, and would enter an extended precision accordingly.

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**Note**

Some applications use extended precision. Others, such as Oracle Fusion General Ledger, do not.

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Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for the cent. This unit does not necessarily correspond to the precision for all currencies.

### **What's a statistical unit currency type?**

The statistical unit currency type is used only for the Statistical (STAT) currency. The Statistical currency is used to record statistics such as the number of items bought and sold. Statistical balances can be used directly in financial reports, allocation formulas, and other calculations.

## **Manage Conversion Rate Types**

### **Creating Conversion Rate Types: Critical Choices**

Maintain different conversion rates between currencies for the same period with the Oracle Fusion General Ledger conversion rate types functionality. Four predefined daily conversion rate types are seeded: Spot, Corporate, User, and Fixed, allowing you to use different rate types for different business needs. During journal entry, the conversion rate is provided automatically by the General Ledger based on the selected conversion rate type and currency, unless the rate type is user. For user rate types, you must enter the conversion rate. Define additional rate types as needed. Set your most frequently used rate type as the default. Conversion rate types cannot be deleted.

Assign conversion rate types to automatically populate the associated rate for your period average and period end rates for the ledger. For example, you can assign the predefined rate type **Spot** to populate your period average rates and the predefined rate type **Corporate** to populate your period end rates. Period average and period end rates are used in translation of account balances.

Conversion rate types are used to automatically assign a rate when you perform the following accounting functions:

- Convert foreign currency journal amounts to ledger currency equivalents
- Convert journal amounts from source ledgers to reporting currencies or secondary ledgers
- Run Revaluation or Translation processes

In creating new conversion rates, decide whether to do the following:

- Enforce inverse relationships
- Select pivot currencies
- Select contra currencies
- Enable cross rates and allow cross rate overrides
- Maintain cross rate rules

## Enforce Inverse Relationships

Check the **Enforce Inverse Relationship** check box to specify whether or not to enforce the automatic calculation of inverse conversion rates when defining daily rates.

Action	Results
Checked	<p>When you enter a daily rate to convert currency A to currency B, General Ledger automatically calculates the inverse rate, currency B to A, and enters it in the adjacent column. If either rate is changed, the application automatically recalculates the other rate.</p> <p>You can update the application calculated inverse rate, but once you do, the related rate is updated. The check box enforces that the inverse relationship is maintained but does not prevent you from updating the rates.</p>
Unchecked	<p>General Ledger calculates the inverse rate but you can change the rate and update the daily rates table without the corresponding rate being updated.</p>

## Select Pivot Currencies

Select a pivot currency that is commonly used in your currency conversions. A pivot currency is the central currency that interacts with contra currencies. For example, you set up a daily rate between the US dollar (USD) and the Euro currency (EUR) and another between the USD and the Canadian dollar (CAD). USD is the pivot currency in creating a rate between EUR and CAD. EUR and CAD are the contra currencies. Select the pivot currency from the list of values which contains those currencies that are enabled, effective, and not a statistical (STAT) currency. The description of the pivot currency is populated automatically based on the currency definition.

If you want the application to create cross rates against a base currency, define the base currency as the pivot currency. Selected pivot currencies can be changed in the Rate Types page.

## Select Contra Currencies

Select currencies available on the list of values as contra currencies. The available currencies are those currencies which are enabled, effective, not STAT currency, and not the pivot currency selected earlier. The description of the contra currency is populated automatically based on the currency definition. Add or delete contra currencies in the Contra Currencies region of the Rate Types page.

## Enable Cross Rates and Allow Cross Rate Overrides

Check the **Enable Cross Rates** check box to calculate conversion rates based on defined currency rate relationships. General Ledger calculates cross rates

based on your defined cross rate rules. Associate your cross rate rules with a conversion rate type, pivot currency, and contra currencies. Cross rates facilitate the creation of daily rates by automatically creating the rates between contra currencies based on their relationship to a pivot currency. If the **Enable Cross Rates** check box is changed to unchecked after entering contra currencies, the application stops calculating cross rates going forward for that particular rate type. All the earlier calculated cross rates for that rate type remain in the database unless you manually delete them.

For example, if you have daily rates defined for the pivot currency, USD to the contra currency, EUR, and USD to another contra currency, CAD, the application will automatically create the rates between EUR to CAD and CAD to EUR. This prevents the need to manually define the EUR to CAD and CAD to EUR rates.

Check the **Allow Cross Rates Override** check box to permit your users to override application generated cross rates. If you accept the default of unchecked, the application generated cross rates cannot be overridden

### **Maintain Cross Rate Rules**

Define or update your cross rate rules at any time by adding or removing contra currency assignments. Add a contra currency to a cross rate rule and run the Daily Rates Import and Calculation process to generate the new rates. If you remove a cross rate rule or a contra currency from a rule, any cross rates generated previously for that contra currency remain unless you manually delete them. Changes to the rule are not retroactive and will not affect previously stored cross rates. The Cross Rate process generates as many rates as possible and skips currencies where one component of the set is missing.

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#### **Note**

With a defined web service that extracts daily currency conversion rates from external services, for example Reuters, currency conversion rates are automatically updated for the daily rates and all cross currency relationships.

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## **Using Rate Types: Examples**

There are four seeded conversion rate types in Oracle Fusion applications:

- Spot
- Corporate
- User
- Fixed

### **Scenario**

You are the general ledger accountant for InFusion America Inc. You are entering a journal entry to capture three transactions that were transacted in three different foreign currencies:

- Canadian dollar (CAD): A very stable currency
- Mexican Peso (MXP): A fluctuating currency
- Hong Kong dollar (HKD): An infrequently used currency

You enter two lines with accounts and amounts for each foreign currency transaction. Based on your company procedures, you select the appropriate rate type to populate the rate for **Corporate** and **Spot** rate types from your daily rates table. You manually enter the current rate for the **User** rate type.

Currency Selected	Rate Type Selected	Reason
CAD	Corporate	Entered a periodic type of transaction. Your company has established a daily rate to use for the entire month across divisions for all transactions in CAD. CAD is a stable currency that only fluctuations slightly over the month.
MXP	Spot	Entered a periodic type of transaction. Your company enters daily rates each day for MXP because this currency is unstable and fluctuates.
HKD	User	Entered a one time transaction. Your company does not maintain daily rates in HKD.

---

**Note**

Your company does not currently use the **Fixed** rate type. From January 1, 1999, the conversion rate of the French franc (FRF) against the euro currency (EUR) was set at a fixed rate of 1 EUR to 6.55957 FRF. Your French operations were started in 2007, so you maintain all your French business records in the EUR.

---

## FAQs for Manage Conversion Rate Types

### What's the difference between spot, corporate, user, and fixed rate types?

Spot, corporate, user, and fixed conversion rate types differ based on the fluctuations of your entered foreign currency and your company procedures for maintaining daily rates.

Rate Type	Usage
Spot	For currencies with fluctuating conversion rates or when exact currency conversion is needed.
Corporate	For establishment of a standard rate across your organization for a stable currency.
User	For infrequent entries where your daily rates for the entered foreign currency are not set up.

Fixed	For rates where the conversion is constant between two currencies.
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If you have infrequent foreign currency transactions, the user rate type can simplify your currency maintenance while providing an accurate conversion rate on the date of the transaction.

## Manage Daily Rates

### Entering Daily Rates Manually: Worked Example

You are required to enter the daily rates for currency conversion from Great Britain pounds sterling (GBP) to United States dollars (USD) each day for your company InFusion America Inc.

Oracle Application Development Framework (ADF) Desktop Integration is an Excel add-in that must be loaded onto each client. Because ADF Desktop Integration is an add-in to Microsoft Office products, you can use this feature only if they have Microsoft Excel 2007 or above, Internet Explorer 7 or above, and Microsoft Windows 7, XP Professional SP2, or Vista. Users must download the installation files from **Navigator - Tools - Download Desktop Integrator Installer**.

#### Entering Daily Rates

1. Navigate to the Period Close work area.  
Use the Period Close work area to link to close processes and currency process.
2. Click the Manage Currency Rates link.  
Use the Currency Rates Manager page to create, edit, and review currency rate types, daily rates, and historical rates.
3. Click the Daily Rates tab.  
Use the Daily Rates tab to review and enter currency rates.
4. Click the Create in Spreadsheet button.  
Use the Create Daily Rates spreadsheet to enter daily rates in a template that you can save and reuse.
5. Click in the From Currency field. Select the GBP - Pound Sterling list item.
6. Click in the To Currency field. Select the USD - US Dollar list item.
7. Click in the Conversion Rate field. Select the Spot list item
8. Click in the From Conversion field. Enter the desired information into the From Conversion field. Enter a valid value e.g. "8/1/2011".
9. Click in the To Conversion Date field. Enter the desired information into the To Conversion Date field. Enter a valid value e.g. "8/1/2011".

10. Click in the Conversion Rate field. Enter the desired information into the Conversion Rate field. Enter a valid value e.g. "1.33225".
11. Click the Submit button. Click the OK button twice.
12. Review the Record Status column to verify that all rows were loaded successfully.
13. Save the template to use to enter daily rates frequently. You can save the spreadsheet to either a local drive or a shared network drive.

## Updating Currency Rates: Worked Example

You are required to change today's daily rates that were already entered. The rates you are changing are for currency conversion from Great Britain pounds sterling (GBP) to United States dollars (USD) for your company InFusion America Inc.

Currency conversion rates were entered by an automatic load to the Daily Rates table. They can also be entered through a spreadsheet.

### Updating Currency Rates

1. Navigate to the Period Close work area.  
  
Use the Period Close work area to link to close processes and currency process.
2. Click the Manage Currency Rates link.  
  
Use the Currency Rates Manager page to create, edit, and review currency rate types, daily rates, and historical rates.
3. Click the Daily Rates tab.  
  
Use the Daily Rates tab to review and enter currency rates.
4. Click the From Currency list. Select the GBP - Pound Sterling list item.
5. Click the To Currency list. Select the USD - US Dollar list item.
6. Enter the dates for the daily rates that you are changing. Enter today's date.
7. Click the Rate Type list. Select the Spot list item.
8. Click the Search button.
9. Click in the Rate field. Enter the new rate of 1.7 in the Rate field.
10. Click in the Inverse Rate field. Enter the new inverse rate of 0.58822 in the Inverse Rate field.
11. Click the Save button.

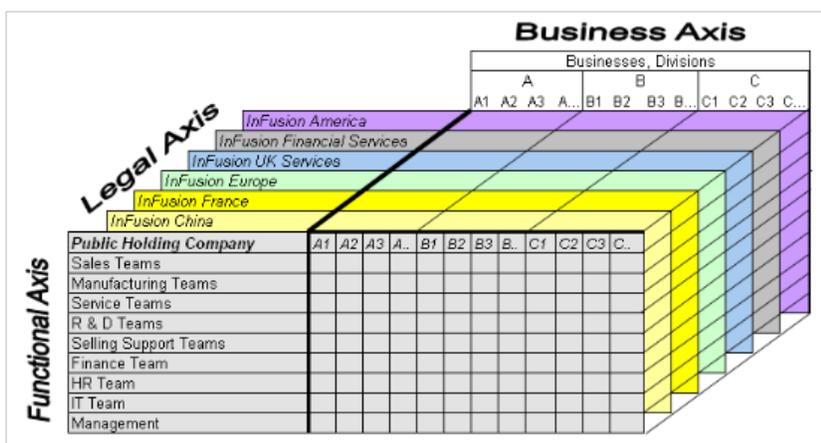
## Common Applications Configuration: Define Enterprise Structures for Sales

### Enterprise Structures: Overview

Oracle Fusion Applications have been designed to ensure your enterprise can be modeled to meet legal and management objectives. The decisions about your implementation of Oracle Fusion Applications are affected by your:

- Industry
- Business unit requirements for autonomy
- Business and accounting policies
- Business functions performed by business units and optionally, centralized in shared service centers
- Locations of facilities

Every enterprise has three fundamental structures, legal, managerial, and functional, that are used to describe its operations and provide a basis for reporting. In Oracle Fusion, these structures are implemented using the chart of accounts and organizations. Although many alternative hierarchies can be implemented and used for reporting, you are likely to have one primary structure that organizes your business into divisions, business units, and departments aligned by your strategic objectives.



## Legal Structure

The figure above shows a typical group of legal entities, operating various business and functional organizations. Your ability to buy and sell, own, and employ comes from your charter in the legal system. A corporation is a distinct legal entity from its owners and managers. The corporation is owned by its shareholders, who may be individuals or other corporations. There are many other kinds of legal entities, such as sole proprietorships, partnerships, and government agencies.

A legally recognized entity can own and trade assets and employ people in the jurisdiction in which it is registered. When granted these privileges, legal entities are also assigned responsibilities to:

- Account for themselves to the public through statutory and external reporting
- Comply with legislation and regulations
- Pay income and transaction taxes
- Process value added tax (VAT) collection on behalf of the taxing authority

Many large enterprises isolate risk and optimize taxes by incorporating subsidiaries. They create legal entities to facilitate legal compliance, segregate operations, optimize taxes, complete contractual relationships, and isolate risk. Enterprises use legal entities to establish their enterprise's identity under the laws of each country in which their enterprise operates.

In the figure above, a separate card represents a series of registered companies. Each company, including the public holding company, InFusion America, must be registered in the countries where they do business. Each company consists of various divisions created for purposes of management reporting. These are shown as vertical columns on each card. For example, a group might have a separate company for each business in the United States (US), but have their United Kingdom (UK) legal entity represent all businesses in that country. The divisions are linked across the cards so that a business can appear on some or all of the cards. For example, the air quality monitoring systems business might be operated by the US, UK, and France companies. The list of business divisions is on the Business Axis. Each company's card is also horizontally striped by functional groups, such as the sales team and the finance team. This functional list is called the Functional Axis. The overall image suggests that information might, at a minimum, be tracked by company, business, division, and function in a group environment. In Oracle Fusion Applications, the legal structure is implemented using legal entities.

## Management Structure

Successfully managing multiple businesses requires that you segregate them by their strategic objectives, and measure their results. Although related to your legal structure, the business organizational hierarchies do not need to be reflected directly in the legal structure of the enterprise. The management structure can include divisions, subdivisions, lines of business, strategic business units, and cost centers. In the figure above, the management structure is shown on the Business Axis. In Oracle Fusion Applications, the management structure is implemented using divisions and business units.

## Functional Structure

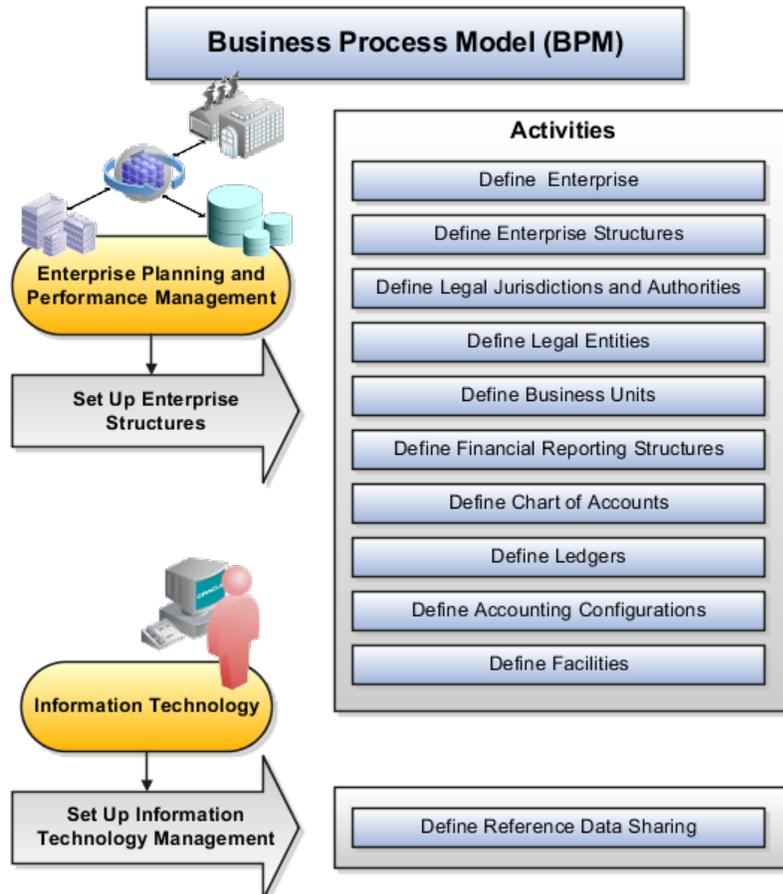
Straddling the legal and business organizations is a functional organization structured around people and their competencies. For example, sales,

manufacturing, and service teams are functional organizations. This functional structure is represented by the Functional Axis in the figure above. You reflect the efforts and expenses of your functional organizations directly on the income statement. Organizations must manage and report revenues, cost of sales, and functional expenses such as research and development (R&D) and selling, general, and administrative (SG&A) expenses. In Oracle Fusion Applications, the functional structure is implemented using departments and organizations, including sales, marketing, project, cost, and inventory organizations.

## Enterprise Structures Business Process Model: Explained

In Oracle Fusion Applications, the Enterprise Performance and Planning Business Process Model illustrates the major implementation tasks that you perform to create your enterprise structures. This process model includes the Set Up Enterprise Structures business process, which consist of implementation activities that span many product families. Information Technology is a second Business Process Model which contains the Set Up Information Technology Management business process. Define Reference Data Sharing is one of the activities in this business process and is important in the implementation of the enterprise structures. This activity creates the mechanism to share reference data sets across multiple ledgers, business units, and warehouses, reducing the administrative burden and decreasing the time needed to implement.

The following figure and chart describes the Business Process Model structures and activities.



BPM Activities	Description
Define Enterprise	Define the enterprise to capture the name of the deploying enterprise and the location of the headquarters. There is normally a single enterprise organization in a production environment. Multiple enterprises are defined when the system is used to administer multiple customer companies, or when you choose to set up additional enterprises for testing or development.
Define Enterprise Structures	Define enterprise structures to represent an organization with one or more legal entities under common control. Define internal and external organizations to represent each area of business within the enterprise.
Define Legal Jurisdictions and Authorities	Define information for governing bodies that operate within a jurisdiction.
Define Legal Entities	Define legal entities and legal reporting units for business activities handled by the Oracle Fusion Applications.
Define Business Units	Define business units of an enterprise to allow for flexible implementation, to provide a consistent entity for controlling and reporting on transactions, and to be an anchor for the sharing of sets of reference data across applications.
Define Financial Reporting Structures	Define financial reporting structures, including organization structures, charts of accounts, organizational hierarchies, calendars, currencies and rates, ledgers, and document sequences which are used in organizing the financial data of a company.
Define Chart of Accounts	Define chart of accounts including hierarchies and values to enable tracking of financial transactions and reporting at legal entity, cost center, account, and other segment levels.
Define Ledgers	Define the primary accounting ledger and any secondary ledgers that provide an alternative accounting representation of the financial data.
Define Accounting Configurations	Define the accounting configuration that serves as a framework for how financial records are maintained for an organization.
Define Facilities	Define inventory, item, and cost organizations. Inventory organizations represent facilities that manufacture or store items. The item master organization holds a single definition of items that can be shared across many inventory organizations. Cost organizations group inventory organizations within a legal entity to establish the cost accounting policies.
Define Reference Data Sharing	Define how reference data in the applications is partitioned and shared.

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**Note**

There are product specific implementation activities that are not listed here and depend on the applications you are implementing. For example, you can

## Global Enterprise Configuration: Points to Consider

Start your global enterprise structure configuration by discussing what your organization's reporting needs are and how to represent those needs in the Oracle Fusion Applications. Consider deployment on a single instance, or at least, on as few instances as possible, to simplify reporting and consolidations for your global enterprises. The following are some questions and points to consider as you design your global enterprise structure in Oracle Fusion.

- Enterprise Configuration
- Business Unit Management
- Security Structure
- Compliance Requirements

### Enterprise Configuration

What is the level of configuration needed to achieve the reporting and accounting requirements? What components of your enterprise do you need to report on separately? Which components can be represented by building a hierarchy of values to provide reporting at both detail and summary levels? Where are you on the spectrum of centralization versus decentralization?

### Business Unit Management

What reporting do I need by business unit? How can you set up your departments or business unit accounts to achieve departmental hierarchies that report accurately on your lines of business? What reporting do you need to support the managers of your business units, and the executives who measure them? How often are business unit results aggregated? What level of reporting detail is required across business units?

### Security Structure

What level of security and access is allowed? Are business unit managers and the people that report to them secured to transactions within their own business unit? Are the transactions for their business unit largely performed by a corporate department or shared service center?

### Compliance Requirements

How do you comply with your corporate external reporting requirements and local statutory reporting requirements? Do you tend to prefer a corporate first or an autonomous local approach? Where are you on a spectrum of centralization, very centralized or decentralized?

## Modeling Your Enterprise Management Structure in Oracle Fusion: Example

This example uses a fictitious global company to demonstrate the analysis that can occur during the enterprise structure configuration planning process.

### Scenario

Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion

has purchased an Oracle Fusion enterprise resource planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers. You are chairing a committee to discuss creation of a model for your global enterprise structure including both your US and UK operations.

### **InFusion Corporation**

InFusion Corporation has 400 plus employees and revenue of \$120 million. Your product line includes all the components to build and maintain air quality monitoring (AQM) systems for homes and businesses. You have two distribution centers and three warehouses that share a common item master in the US and UK. Your financial services organization provides funding to your customers for the start up costs of these systems.

### **Analysis**

The following are elements you need to consider in creating your model for your global enterprise structure.

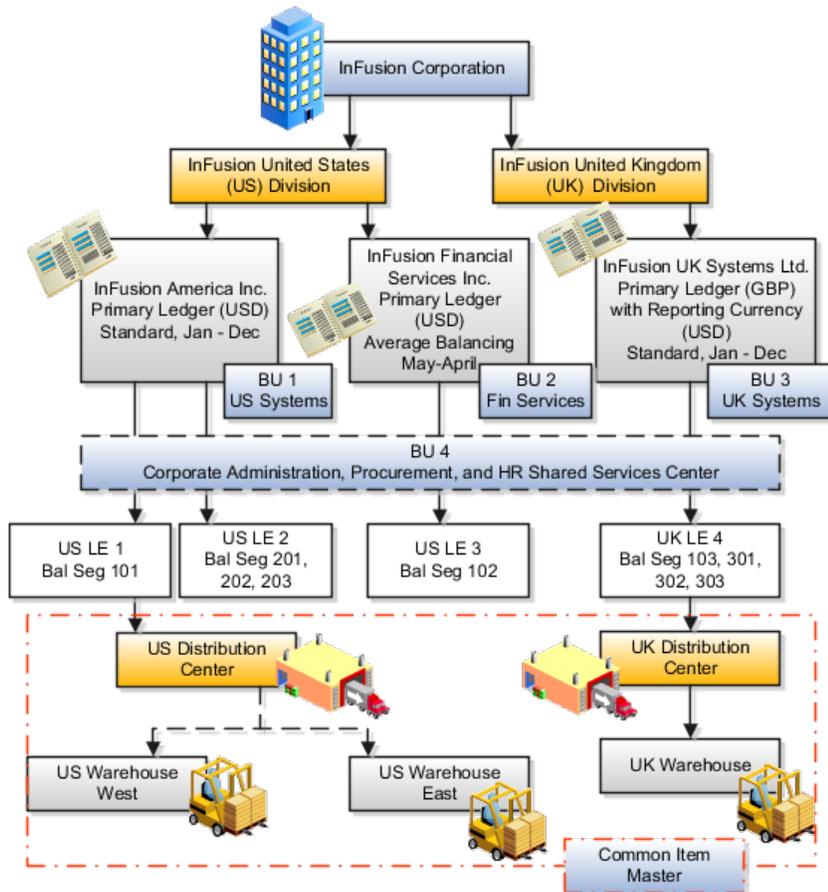
- Your company is required to report using US Generally Accepted Accounting Principles (GAAP) standards and UK Statements of Standard Accounting Practice and Financial Reporting Standards. How many ledgers do you need to achieve proper statutory reporting?
- Your managers need reports that show profit and loss (revenue and expenses) for their lines of business. Do you use business units and balancing segments to represent your divisions and businesses? Do you secure data by two segments in your chart of accounts which represents each department and legal entity or one segment that represents both to produce useful, but confidential management reports?
- Your corporate management requires reports showing total organizational performance with drill down capability to the supporting details. Do you need multiple balancing segment hierarchies to achieve proper rollup of balances for reporting requirements?
- Your company has all administrative, account payables, procurement, and human resources functions performed at their corporate headquarters. Do you need one or more business unit in which to perform all these functions? How will your shared service center be configured?

## **Global Enterprise Structure Model**

The following figure and table summarize the model that your committee has designed and uses numerical values to provide a sample representation of your structure. The model includes the following recommendations:

- Creation of three separate ledgers representing your separate legal entities:
  - InFusion America Inc.
  - InFusion Financial Services Inc.
  - InFusion UK Services Ltd.
- Consolidation of results for system components, installations, and maintenance product lines across the enterprise

- All UK general and administrative costs processed at the UK headquarters
- US Systems' general and administrative costs processed at US Corporate headquarters
- US Financial Services maintains its own payables and receivables departments



Real World Entity	Entity Name	Enterprise	Legal Entity	BSV	Ledger	BU	Cost Center	Dept	Item Master Org	Inventory Org
Enterprise	InFusion Group	M								
Company	US LE 1		M	O	O					
Company	US LE 2		M	O	O					
Company	US LE 3		M	O	O					
Company	UK LE 4		M	O	O					
Business Unit	US Systems BU 1					M				
Business Unit	FIN Services BU 2					M				
Business Unit	UK Systems BU 3					M				
Division	InFusion UK			O			O			
Division	InFusion US			O			O			
Headquarters	BU 4					M				
Shared Service Center	BU 4					M				
Department	AP Department						O	M		
List of Items	Common Item Master								O	
Distribution Center	US Distribution Center									O
Distribution Center	UK Distribution Center									O
Warehouse	US Warehouse West									O
Warehouse	US Warehouse East									O
Warehouse	UK Warehouse									O
BSV = Balancing Segment Value										
BU = Business Unit										
Dept = Department										
Org = Organization										
M = Mandatory Setup										
O = Optional Setup										

In this chart, the green globe stands for mandatory and gold globe stands for optional setup. The following statements expand on the data in the chart.

- The enterprise is mandatory because it serves as an umbrella for the entire implementation. All organizations are created within an enterprise.
- Legal entities are also mandatory. They can be optionally mapped to balancing segment values or represented by ledgers. Mapping balancing segment values to legal entities is mandatory if you plan to use the intercompany functionality.
- At least one ledger is mandatory in an implementation in which you record your accounting transactions.
- Business units are also mandatory because financial transactions are processed in business units.
- A shared service center is optional, but if used, must be a business unit.
- Divisions are optional and can be represented with a hierarchy of cost centers or by a second balancing segment value.
- Departments are mandatory because they track your employees.
- Optionally, add an item master organization and inventory organizations if you are tracking your inventory transactions in Oracle Fusion Applications.

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**Note**

Some Oracle Fusion Human Capital Management and Customer Relationship Management implementations do not require recording of accounting transactions and therefore, do not require implementation of a ledger.

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**Note**

The InFusion Corporation is a legal entity but is not discussed in this example.

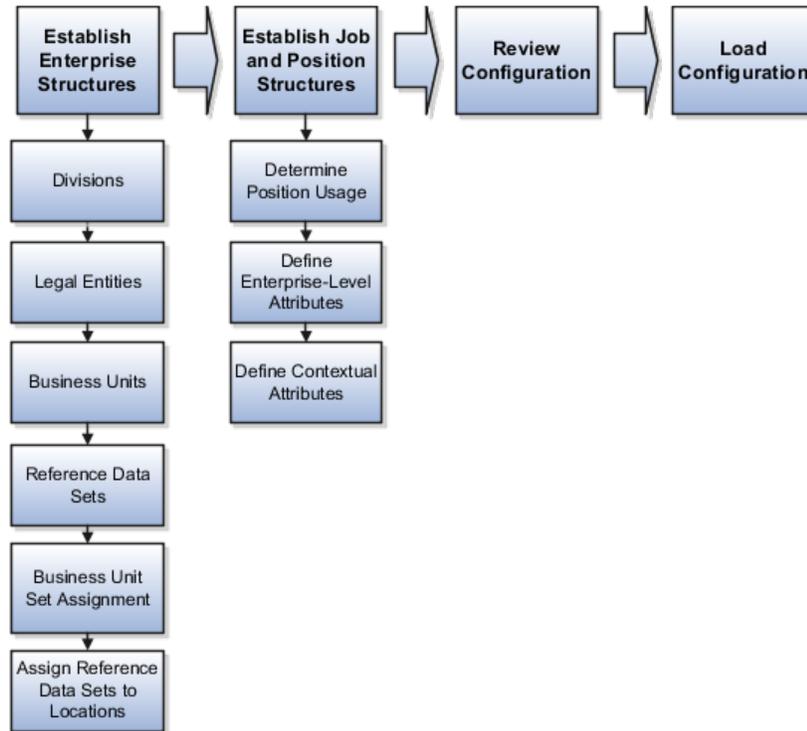
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## **Define Initial Configuration with the Enterprise Structures Configurator**

### **Establishing Enterprise Structures Using the Enterprise Structures Configurator: Explained**

The Enterprise Structures Configurator is an interview-based tool that guides you through the process of setting up a basic enterprise structure. By answering questions about your enterprise, the tool creates a structure of divisions, legal entities, business units, and reference data sets that reflects your enterprise structure. After you create your enterprise structure, you also follow a guided process to determine whether or not to use positions, and whether to set up additional attributes for jobs and positions. After you define your enterprise structure and your job and position structures, you can review them, make any necessary changes, and then load the final configuration.

This figure illustrates the process to configure your enterprise using the Enterprise Structures Configurator.



To be able to use the Enterprise Structures Configurator, you must select the Enterprise Structures Guided Flow feature for your offerings on the Configure Offerings page in the Setup and Maintenance work area. If you do not select this feature, then you must set up your enterprise structure using individual tasks provided elsewhere in the offerings, and you cannot create multiple configurations to compare different scenarios.

### **Establish Enterprise Structures**

To define your enterprise structures, you use the guided flow within the Establish Enterprise Structures task to enter basic information about your enterprise, such as the primary industry and the location of your headquarters. You then create divisions, legal entities, business units, and reference data sets. The Establish Enterprise Structures task enables you to create multiple enterprise configurations so that you can compare different scenarios. Until you load a configuration, you can continue to create and edit multiple configurations until you arrive at one that best suits your enterprise.

### **Establish Job and Position Structures**

You also use a guided process to determine whether you want to use jobs only, or jobs and positions. The primary industry that you select in the Establish Enterprise Structures task provides the application with the information needed to make an initial recommendation. You can either accept the recommendation, or you can answer additional questions about how you manage people in your enterprise, and then make a selection. After you select whether to use jobs or positions, the guided process prompts you to set up a descriptive flexfield structure for jobs, and for positions if you have chosen to use them. Descriptive

flexfields enable you to capture additional information when you create jobs and positions.

### **Review Configuration**

Finally, you can review a summary of the results of the two interview processes. For each configuration, the online summary lists the divisions, legal entities, business units, reference data sets, and job and position structures that the application will create when you load the configuration.

For a more detailed analysis of a configuration, you can access the Technical Summary Report. This report lists the same information as the online summary, but also lists the following information that will be created by the application when you load the configuration, based on your configuration:

- Legislative data groups (the application creates one legislative data group for each country that is identified in the configuration.)
- Name of the legislative data group that will be assigned to the payroll statutory unit that is generated for each legal entity.
- Organization hierarchy.

The Technical Summary report also lists the default settings that will be loaded for these fields, which you access from the Manage Enterprise HCM Information task: **Worker Number Generation**, **Employment Model** and **Allow Employment Terms Override**. You can print the Technical Summary Report for each of your configurations and compare each scenario.

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### **Note**

If your PDF viewer preferences are set to open PDFs in a browser window, the Technical Summary report replaces the Oracle Fusion application. Use your browser's Back button to return to the application.

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### **Load Configuration**

You can load only one configuration. When you load a configuration, the application creates the divisions, legal entities, business units, and so on. After you load the configuration, you then use individual tasks to edit, add, and delete enterprise structures.

## **Designing an Enterprise Configuration: Example**

This example illustrates how to set up an enterprise based on a global company operating mainly in the US and the UK with a single primary industry.

### **Scenario**

InFusion Corporation is a multinational enterprise in the high technology industry with product lines that include all the components that are required to build and maintain air quality monitoring (AQM) systems for homes and businesses. Its primary locations are in the US and the UK, but it has smaller outlets in France, Saudi Arabia, and the United Arab Emirates (UAE).

### **Enterprise Details**

In the US, InFusion employs 400 people and has a company revenue of \$120 million. Outside the US, InFusion employs 200 people and has revenue of \$60 million.

## Analysis

InFusion requires three divisions. The US division will cover the US locations. The Europe division will cover the UK and France. Saudi Arabia and the UAE will be covered by the Middle East division.

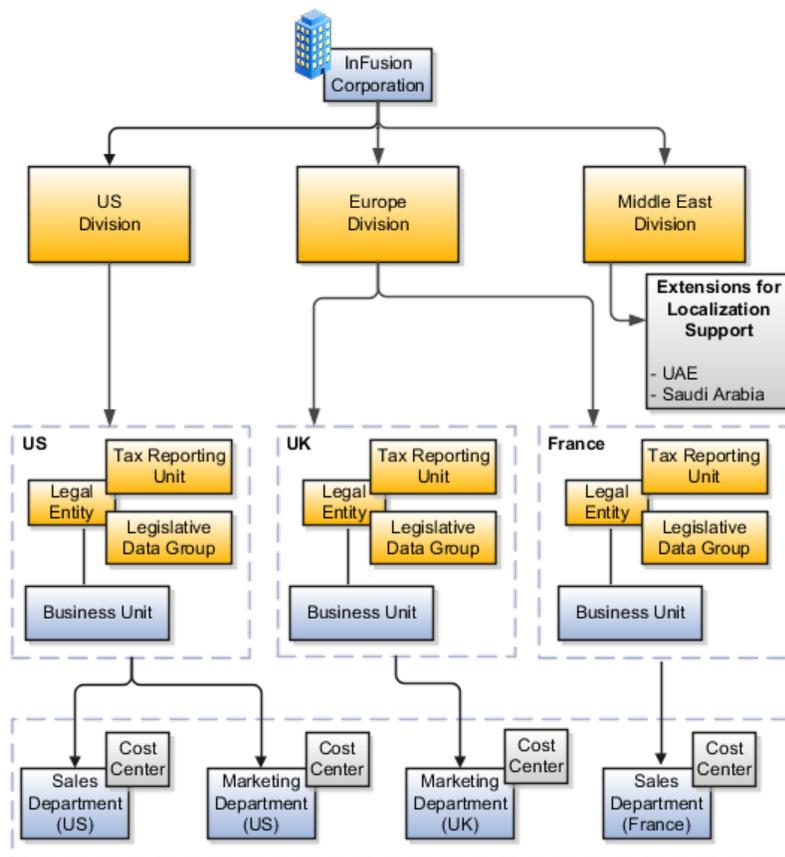
InFusion requires legal entities with legal employers, payroll statutory units, tax reporting units, and legislative data groups for the US, UK, France, Saudi Arabia, and UAE, in order to employ and pay its workers in those countries.

InFusion requires a number of departments across the enterprise for each area of business, such as sales and marketing, and a number of cost centers to track and report on the costs of those departments.

InFusion requires business units for human capital management (HCM) purposes. InFusion has general managers responsible for business units within each country. Those business units may share reference data. Some reference data can be defined within a reference data set that multiple business units may subscribe to. Business units are also required for financial purposes. Financial transactions are always processed within a business unit.

Based on this analysis, InFusion requires an enterprise with multiple divisions, ledgers, legal employers, payroll statutory units, tax reporting units, legislative data groups, departments, cost centers, and business units.

This figure illustrates the enterprise configuration that results from the analysis of InFusion Corporation.



## Division: Explained

Managing multiple businesses requires that you segregate them by their strategic objectives and measure their results. Responsibility to reach objectives can be delegated along the management structure. Although related to your legal structure, the business organizational hierarchies do not need to reflect directly the legal structure of the enterprise. The management entities and structure can include divisions and subdivisions, lines of business, and other strategic business units, and include their own revenue and cost centers. These organizations can be included in many alternative hierarchies and used for reporting, as long as they have representation in the chart of accounts.

### Divisions

A division refers to a business oriented subdivision within an enterprise, in which each division organizes itself differently to deliver products and services or address different markets. A division can operate in one or more countries, and can be comprised of many companies or parts of different companies that are represented by business units.

A division is a profit center or grouping of profit and cost centers, where the division manager is responsible for attaining business goals including profit goals. A division can be responsible for a share of the company's existing product lines or for a separate business. Managers of divisions may also have return on investment goals requiring tracking of the assets and liabilities of the division. The division manager reports to a top corporate executive.

By definition a division can be represented in the chart of accounts. Companies may choose to represent product lines, brands, or geographies as their divisions: their choice represents the primary organizing principle of the enterprise. This may coincide with the management segment used in segment reporting.

Oracle Fusion Applications supports a qualified management segment and recommends that you use this segment to represent your hierarchy of business units and divisions. If managers of divisions have return on investment goals, make the management segment a balancing segment. Oracle Fusion applications allows up to three balancing segments. The values of the management segment can be comprised of business units that roll up in a hierarchy to report by division.

Historically, divisions were implemented as a node in a hierarchy of segment values. For example, Oracle E-Business Suite has only one balancing segment, and often the division and legal entity are combined into a single segment where each value stands for both division and legal entity.

### Use of Divisions in Oracle Fusion Human Capital Management (HCM)

Divisions are used in HCM to define the management organization hierarchy, using the generic organization hierarchy. This hierarchy can be used to create organization based security profiles.

## Legal Entities: Explained

A legal entity is a recognized party with rights and responsibilities given by legislation.

Legal entities have the right to own property, the right to trade, the responsibility to repay debt, and the responsibility to account for themselves to regulators, taxation authorities, and owners according to rules specified in the relevant legislation. Their rights and responsibilities may be enforced through the judicial system. Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, expenses and income, pay transaction taxes, or perform intercompany trading.

A legal entity has responsibility for elements of your enterprise for the following reasons:

- Facilitating local compliance
- Taking advantage of lower corporation taxation in some jurisdictions
- Preparing for acquisitions or disposals of parts of the enterprise
- Isolating one area of the business from risks in another area. For example, your enterprise develops property and also leases properties. You could operate the property development business as a separate legal entity to limit risk to your leasing business.

## **The Role of Your Legal Entities**

In configuring your enterprise structure in Oracle Fusion Applications, you need to understand that the contracting party on any transaction is always the legal entity. Individual legal entities own the assets of the enterprise, record sales and pay taxes on those sales, make purchases and incur expenses, and perform other transactions.

Legal entities must comply with the regulations of jurisdictions, in which they register. Europe now allows for companies to register in one member country and do business in all member countries, and the US allows for companies to register in one state and do business in all states. To support local reporting requirements, legal reporting units are created and registered.

You are required to publish specific and periodic disclosures of your legal entities' operations based on different jurisdictions' requirements. Certain annual or more frequent accounting reports are referred to as statutory or external reporting. These reports must be filed with specified national and regulatory authorities. For example, in the United States (US), your publicly owned entities (corporations) are required to file quarterly and annual reports, as well as other periodic reports, with the Securities and Exchange Commission (SEC), who enforces statutory reporting requirements for public corporations.

Individual entities privately held or held by public companies do not have to file separately. In other countries, your individual entities do have to file in their own name, as well as at the public group level. Disclosure requirements are diverse. For example, your local entities may have to file locally to comply with local regulations in a local currency, as well as being included in your enterprise's reporting requirements in different currency.

A legal entity can represent all or part of your enterprise's management framework. For example, if you operate in a large country such as the United Kingdom or Germany, you might incorporate each division in the country as a separate legal entity. In a smaller country, for example Austria, you might use a single legal entity to host all of your business operations across divisions.

# Creating Legal Entities in the Enterprise Structures Configurator: Points to Consider

Using the Enterprise Structures Configurator (ESC), you can create legal entities for your enterprise automatically, based on the countries in which divisions of your business operate, or you can upload a list of legal entities from a spreadsheet.

## Automatically Creating Legal Entities

If you are not certain of the number of legal entities that you need, you can create them automatically. To use this option, you first identify all of the countries in which your enterprise operates. The application opens the Map Divisions by Country page, which contains a matrix of the countries that you identified, your enterprise, and the divisions that you created. You select the check boxes where your enterprise and divisions intersect with the countries to identify the legal entities that you want the application to create. The enterprise is included for situations where your enterprise operates in a country and acts on behalf of several divisions within the enterprise and is a legal employer in a country. If you select the enterprise for a country, the application creates a country holding company.

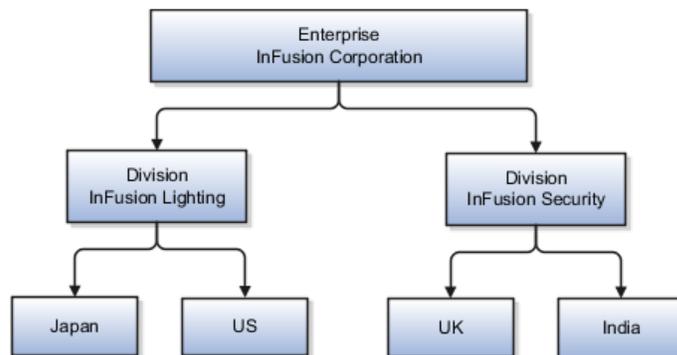
The application automatically creates the legal entities that you select, and identifies them as payroll statutory units and legal employers. For each country that you indicated that your enterprise operates in, and for each country that you created a location for, the application also automatically creates a legislative data group.

Any legal entities that you create automatically cannot be deleted from the Create Legal Entities page within the Enterprise Structures Configurator. You must return to the Map Divisions by Country page and deselect the legal entities that you no longer want.

## Example: Creating Legal Entities Automatically

InFusion Corporation is using the ESC to set up their enterprise structure. They have identified two divisions, one for Lighting, and one for Security. The Lighting division operates in Japan and the US, and the Security division operates in the UK and India.

This figure illustrates InFusion Corporation's enterprise structure.



This table represents the selections that InFusion Corporation makes when specifying which legal entities to create on the Map Divisions by Country page.

Country	Enterprise	InFusion Lighting	InFusion Security
Japan	No	Yes	No
US	No	Yes	No
UK	No	No	Yes
India	No	No	Yes

Based on the selections made in the preceding table, the ESC creates the following four legal entities:

- InFusion Lighting Japan LE
- InFusion Lighting US LE
- InFusion Security UK LE
- InFusion Security India LE

### Creating Legal Entities Using a Spreadsheet

If you have a list of legal entities already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, then add your legal entity information to the spreadsheet, and then upload directly to your enterprise configuration. You can export and import the spreadsheet multiple times to accommodate revisions.

## Legal Entity in Oracle Fusion: Points to Consider

Oracle Fusion Applications support the modeling of your legal entities. If you make purchases from or sell to other legal entities, define these other legal entities in your customer and supplier registers, which are part of the Oracle Fusion Trading Community Architecture. When your legal entities are trading with each other, you represent both of them as legal entities and also as customers and suppliers in your customer and supplier registers. Use legal entity relationships to determine which transactions are intercompany and require intercompany accounting. Your legal entities can be identified as legal employers and therefore, are available for use in Human Capital Management (HCM) applications.

There are several decisions that need to be considered in creating your legal entities.

- The importance of legal entity in transactions
- Legal entity and its relationship to business units
- Legal entity and its relationship to divisions
- Legal entity and its relationship to ledgers
- Legal entity and its relationship to balancing segments
- Legal entity and its relationship to consolidation rules
- Legal entity and its relationship to intercompany transactions

- Legal entity and its relationship to worker assignments and legal employer
- Legal entity and payroll reporting
- Legal reporting units

## **The Importance of Legal Entity in Transactions**

All of the assets of the enterprise are owned by individual legal entities. Oracle Fusion Financials allow your users to enter legal entities on transactions that represent a movement in value or obligation.

For example, the creation of a sales order creates an obligation for the legal entity that books the order to deliver the goods on the acknowledged date, and an obligation of the purchaser to receive and pay for those goods. Under contract law in most countries, damages can be sought for both actual losses, putting the injured party in the same state as if they had not entered into the contract, and what is called loss of bargain, or the profit that would have made on a transaction.

In another example, if you revalued your inventory in a warehouse to account for raw material price increases, the revaluation and revaluation reserves must be reflected in your legal entity's accounts. In Oracle Fusion Applications, your inventory within an inventory organization is managed by a single business unit and belongs to one legal entity.

## **Legal Entity and Its Relationship to Business Units**

A business unit can process transactions on behalf of many legal entities. Frequently, a business unit is part of a single legal entity. In most cases the legal entity is explicit on your transactions. For example, a payables invoice has an explicit legal entity field. Your accounts payables department can process supplier invoices on behalf of one or many business units.

In some cases, your legal entity is inferred from your business unit that is processing the transaction. For example, your business unit A agrees on terms for the transfer of inventory to your business unit B. This transaction is binding on your default legal entities assigned to each business unit. Oracle Fusion Procurement, Oracle Fusion Projects, and Oracle Fusion Supply Chain applications rely on deriving the legal entity information from the business unit.

## **Legal Entity and Its Relationship to Divisions**

The division is an area of management responsibility that can correspond to a collection of legal entities. If desired, you can aggregate the results for your divisions by legal entity or by combining parts of other legal entities. Define date-effective hierarchies for your cost center or legal entity segment in your chart of accounts to facilitate the aggregation and reporting by division. Divisions and legal entities are independent concepts.

## **Legal Entity and Its Relationship to Ledgers**

One of your major responsibilities is to file financial statements for your legal entities. Map legal entities to specific ledgers using the Oracle Fusion General Ledger Accounting Configuration Manager. Within a ledger, you can optionally map a legal entity to one or more balancing segment values.

## Legal Entity and Its Relationship to Balancing Segments

Oracle Fusion General Ledger supports up to three balancing segments. Best practices recommend that one of these segments represents your legal entity to ease your requirement to account for your operations to regulatory agencies, tax authorities, and investors. Accounting for your operations means you must produce a balanced trial balance sheet by legal entity. If you account for many legal entities in a single ledger, you must:

1. Identify the legal entities within the ledger.
2. Balance transactions that cross legal entity boundaries through intercompany transactions.
3. Decide which balancing segments correspond to each legal entity and assign them in Oracle Fusion General Ledger Accounting Configuration Manager. Once you assign one balancing segment value in a ledger, then all your balancing segment values must be assigned. This recommended best practice facilitates reporting on assets, liabilities, and income by legal entity.

Represent your legal entities by at least one balancing segment value. You may represent it by two or three balancing segment values if more granular reporting is required. For example, if your legal entity operates in multiple jurisdictions in Europe, you might define balancing segment values and map them to legal reporting units. You can represent a legal entity by more than one balancing segment value, do not use a single balancing segment value to represent more than one legal entity.

In Oracle Fusion General Ledger, there are three balancing segments. You can use separate balancing segments to represent your divisions or strategic business units to enable management reporting at the balance sheet level for each division or business unit. For example, use this solution to empower your business unit and divisional managers to track and assume responsibility for their asset utilization or return on investment. Using multiple balancing segments is also useful when you know at the time of implementation that you are disposing of a part of a legal entity and need to isolate the assets and liabilities for that entity.

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### Note

Implementing multiple balancing segments requires every journal entry that is not balanced by division or business unit, to generate balancing lines. Also, you cannot change to multiple balancing segments easily after you have begun to use the ledger because your historical data is not balanced by the new multiple balancing segments. Restating historical data must be done at that point.

To use this feature for disposal of a part of a legal entity, implement multiple balancing segments at the beginning of the legal entity's corporate life or on conversion to Oracle Fusion.

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If you decided to account for each legal entity in a separate ledger, there is no requirement to identify the legal entity with a balancing segment value within the ledger.

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### Note

While transactions that cross balancing segments don't necessarily cross legal entity boundaries, all transactions that cross legal entity boundaries must cross balancing segments. If you make an acquisition or are preparing to dispose of a portion of your enterprise, you may want to account for that part of the enterprise in its own balancing segment even if it is not a separate legal entity. If you do not map legal entities sharing the same ledger to balancing segments, you will not be able to distinguish them using the intercompany functionality or track their individual equity.

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## **Legal Entity and Its Relationship to Consolidation Rules**

In Oracle Fusion Applications you can map legal entities to balancing segments and then define consolidation rules using your balancing segments. You are creating a relationship between the definition of your legal entities and their role in your consolidation.

## **Legal Entity and its Relationship to Intercompany Transactions**

Use Oracle Fusion Intercompany functionality for automatic creation of intercompany entries across your balancing segments. Intercompany processing updates legal ownership within the enterprise's groups of legal entities. Invoices or journals are created as needed. To limit the number of trading pairs for your enterprise, set up intercompany organizations and assign them to your authorized legal entities. Define processing options and intercompany accounts to use when creating intercompany transactions and to assist in consolidation elimination entries. These accounts are derived and automatically entered on your intercompany transactions based on legal entities assigned to your intercompany organizations.

Intracompany trading, in which legal ownership isn't changed but other organizational responsibilities are, is also supported. For example, you can track assets and liabilities that move between your departments within your legal entities by creating departmental level intercompany organizations.

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### **Note**

In the Oracle Fusion Supply Chain applications, model intercompany relationships using business units, from which legal entities are inferred.

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## **Legal Entity and Its Relationship to Worker Assignments and Legal Employer**

Legal entities that employ people are called legal employers in the Oracle Fusion Legal Entity Configurator. You must enter legal employers on worker assignments in Oracle Fusion HCM.

## **Legal Entity and Payroll Reporting**

Your legal entities are required to pay payroll tax and social insurance such as social security on your payroll. In Oracle Fusion Applications, you can register payroll statutory units to pay and report on payroll tax and social insurance on behalf of many of your legal entities. As the legal employer, you might be required to pay payroll tax, not only at the national level, but also at the local level. You meet this obligation by establishing your legal entity as a place of work within the jurisdiction of a local authority. Set up legal reporting units to represent the part of your enterprise with a specific legal reporting obligation.

You can also mark these legal reporting units as tax reporting units, if the legal entity must pay taxes as a result of establishing a place of business within the jurisdiction.

## Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy. In Oracle Fusion Applications, you assign your business units to one primary ledger. For example, if a business unit is processing payables invoices they will need to post to a particular ledger. This assignment is mandatory for your business units with business functions that produce financial transactions.

In Oracle Fusion Applications, use business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Anchors the sharing of sets of reference data across applications

Business units process transactions using reference data sets that reflect your business rules and policies and can differ from country to country. With Oracle Fusion Application functionality, you can choose to share reference data, such as payment terms and transaction types, across business units, or you can choose to have each business unit manage its own set depending on the level at which you wish to enforce common policies.

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your ledger definition, because the uniqueness of sequencing is only ensured within a ledger. In these cases, define a single ledger and assign one legal entity and business unit.

In summary, use business units in the following ways:

- Management reporting
- Processing of transactions
- Security of transactional data
- Reference data definition and sharing

### Brief Overview of Business Unit Security

Business units are used by a number of Oracle Fusion Applications to implement data security. You assign data roles to your users to give them access to data in business units and permit them to perform specific functions on this data. When a business function is enabled for a business unit, the application can trigger

the creation of data roles for this business unit based on the business function's related job roles.

For example, if a payables invoicing business function is enabled, then it is clear that there are employees in this business unit that perform the function of payables invoicing, and need access to the payables invoicing functionality. Therefore, based on the correspondence between the business function and the job roles, appropriate data roles are generated automatically. Use Human Capital Management (HCM) security profiles to administer security for employees in business units.

## Creating Business Units in the Enterprise Structures Configurator: Points to Consider

Business units are used within Oracle Fusion applications for management reporting, processing of transactions, and security of transactional data. Using the Enterprise Structures Configurator (ESC), you create business units for your enterprise either automatically or manually.

### Automatically Creating Business Units

To create business units automatically, you must specify the level at which to create business units. Business units within your enterprise may be represented at the business function level, such as Sales, Consulting, Product Development, and so on, or they may be represented at a more detailed level, where a business unit exists for each combination of countries in which you operate and the functions in those countries.

You can automatically create business units at the following levels:

- Country
- Country and Division
- Country and business function
- Division
- Division and legal entity
- Division and business function
- Business function
- Legal entity
- Business function and legal entity

Select the option that best meets your business requirements, but consider the following:

- If you use Oracle Fusion Financials, the legal entity option is recommended because of the manner in which financial transactions are processed.
- The business unit level that you select determines how the application automatically creates reference data sets.

After you select a business unit level, the application generates a list of business units, and you select the ones you want the application to create. If you select a

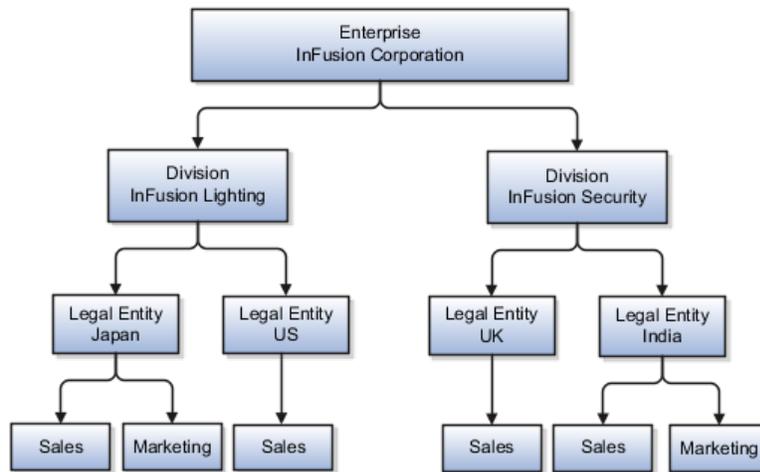
level that has two components, such as country and division, then the system displays a table listing both components, and you select the check boxes at the intersections of the components.

The business units listed by the application are suggestions only, and are meant to simplify the process to create business units. You are not required to select all of the business units suggested. When you navigate to the next page in the ESC guided flow, which is the Manage Business Units page, you cannot delete any of the business units that were created automatically. You must return to the Create Business Units page and deselect any business units that you no longer want.

### Example: Selecting Business Unit Levels

InFusion Corporation is using the Enterprise Structures Configurator to set up their enterprise structure. They have identified two divisions, one for Lighting, and one for Security. They operate in four countries: US, UK, Japan, and India, and they have created a legal entity for each of the countries. The sales and marketing functions are based in both India and Japan, while the US and the UK have only the sales function.

This figure illustrates InFusion Corporation's enterprise structure.



The following table lists the options for business unit levels and the resulting business units that the application suggests for InFusion Corporation.

Business Unit Level	Suggested Business Units
Country	<ul style="list-style-type: none"> <li>• US</li> <li>• UK</li> <li>• Japan</li> <li>• India</li> </ul>
Country and Division	<ul style="list-style-type: none"> <li>• InFusion Lighting: Japan</li> <li>• InFusion Lighting: US</li> <li>• InFusion Security: UK</li> <li>• InFusion Security: India</li> </ul>

Country and business function	<ul style="list-style-type: none"> <li>• Sales: Japan</li> <li>• Marketing: Japan</li> <li>• Sales: US</li> <li>• Sales: UK</li> <li>• Marketing: India</li> <li>• Sales: India</li> </ul>
Division	<ul style="list-style-type: none"> <li>• InFusion Lighting</li> <li>• InFusion Security</li> </ul>
Division and Legal Entity	<ul style="list-style-type: none"> <li>• InFusion Lighting: Japan</li> <li>• InFusion Lighting: US</li> <li>• Infusion Security: UK</li> <li>• Infusion Security: India</li> </ul>
Division and Business Function	<ul style="list-style-type: none"> <li>• InFusion Lighting, Sales</li> <li>• InFusion Lighting, Marketing</li> <li>• InFusion Security, Sales</li> <li>• InFusion Security, Marketing</li> </ul>
Business Function	<ul style="list-style-type: none"> <li>• Sales</li> <li>• Marketing</li> </ul>
Legal Entity	<ul style="list-style-type: none"> <li>• Legal Entity: Japan</li> <li>• Legal Entity: US</li> <li>• Legal Entity: UK</li> <li>• Legal Entity India</li> </ul>
Legal Entity and Business Function	<ul style="list-style-type: none"> <li>• Legal Entity: Japan, Sales</li> <li>• Legal Entity: Japan, Marketing</li> <li>• Legal Entity: US, Sales</li> <li>• Legal Entity: UK, Sales</li> <li>• Legal Entity India, Marketing</li> <li>• Legal Entity India, Sales</li> </ul>

### Manually Creating Business Units

If none of the levels for creating business units meets your business needs, you can create business units manually, and you create them on the Manage Business Units page. If you create business units manually, then no reference data sets are created automatically. You must create them manually as well.

## Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple

ledgers, business units, and warehouses, thereby reducing the administrative burden and decreasing the time needed to implement new business units. For example, you can share sales methods, transaction types, or payment terms across business units or selected other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

## Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set will affect all business units or application components using that set. You can assign a separate set to each business unit for the type of object that is being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly setup data for this entity component. You can establish other business unit reference data in a business unit specific reference data set as needed

## Reference Data Sharing Methods

There are variations in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. The simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. The most commonly used method of sharing reference data that allows defining reference data object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units without the need to be explicitly assigned the transaction types to each business unit. In addition, you can assign a business unit specific set of transaction types. At transaction entry, the list of values for transaction

types includes transaction types from the set assigned to the business unit, as well as transaction types assigned to the common set that is shared across all business units.

- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but the payment term Net 15 is assigned to only your corporate business unit specific set. At transaction entry, the list of values for payment terms consists of only one set of data; the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

## Business Units and Reference Data Sets: How They Work Together

Reference data sharing is a feature within Oracle Fusion that enables you to group set-enabled reference data such as jobs or grades so that the data can be shared across different parts of the organization. Sets also enable you to filter reference data at the transaction level so that only data that has been assigned to certain sets is available to select. To filter reference data, Oracle Fusion Human Capital Management (HCM), applications use the business unit on the transaction. To set up reference data sharing in Oracle Fusion HCM, you create business units and sets, and then assign the sets to the business units.

### Common Set Versus Specific Sets

Some reference data in your organization may be considered global, and should therefore be made available for use within the entire enterprise. You can assign this type of data to the Common Set, which is a predefined set. Regardless of the business unit on a transaction, reference data that has been assigned to the Common Set will always be available, in addition to the reference data that has been assigned to the set that corresponds to the business unit on the transaction.

Other types of reference data may be specific to certain business units, so you want to restrict the use of the data to those business units. In this case, you can create sets specifically for this type of data, and assign the sets to the business units.

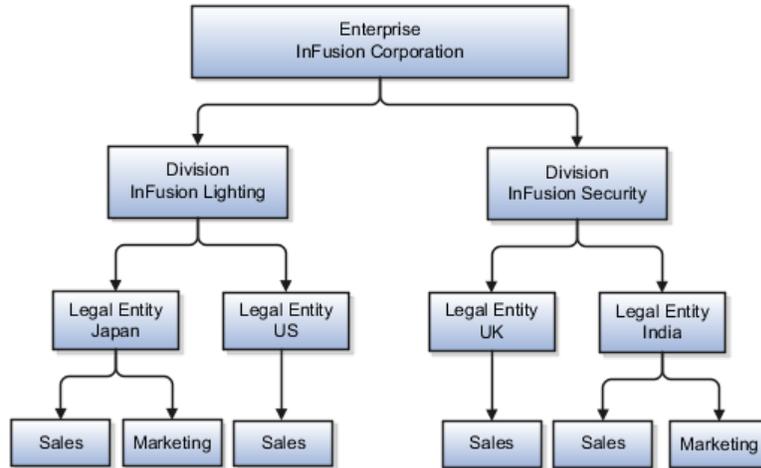
### Business Unit Set Assignment

When you assign reference data sets to business units, you assign a default reference data set that will be used for all reference data types for that business unit. You can override the set assignment for one or more data types.

### Example: Assigning Sets to Business Units

InFusion Corporation has two divisions: Lighting and Security, and the divisions each have two locations. Each location has one or more business functions.

The following figure illustrates the structure of InFusion Corporation.



When deciding how to create business units, InFusion decides to create them using the country and business function level. Therefore, they created the following business units:

- Sales\_Japan
- Marketing\_Japan
- Sales\_US
- Sales\_UK
- Marketing\_India
- Sales\_India

Because locations, departments, and grades are specific to each business unit, InFusion does not want to share these types of reference data across business units. They will create a reference data set for each business unit so that data of those types can be set up separately. Because the jobs in the Sales business function are the same across many locations, InFusion decides to create one additional set called Jobs and they will override the set assignment for the Jobs reference data group and assign it to the Jobs set. Based on these requirements, they create the following sets:

- Sales\_Japan\_Set
- Mktg\_Japan\_Set
- Sales\_US\_Set
- Sales\_UK\_Set
- Mktg\_India\_Set
- Sales\_India\_Set
- Grades\_Set

InFusion assigns business units to sets as follows:

Business Unit	Default Set Assignment	Set Assignment Overrides
Sales_Japan	Sales_Japan_Set for grades, departments, and locations	Jobs set for jobs

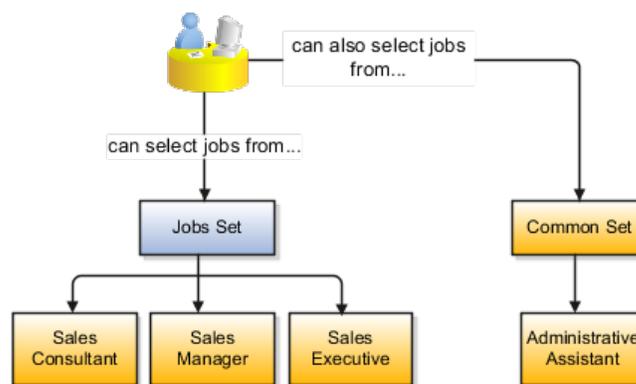
Marketing_Japan	Mktg_Japan_Set for grades, departments, and locations	None
Sales_US	Sales_US_Set for grades, departments, and locations	Jobs set for jobs
Sales_UK	Sales_UK_Set for grades, departments, and locations	Jobs set for jobs
Marketing_India	Mktg_India_Set for grades, departments, and locations	None
Sales_India	Sales_India_Set for grades, departments, and locations	Jobs set for jobs

When setting up grades, departments, and locations for the business units, InFusion will assign the data to the default set for each business unit. When setting up jobs, they will assign the Jobs set and will assign the Common Set to any jobs that may be used throughout the entire organization.

When using grades, departments, and locations at the transaction level, users will be able to select data from the set that corresponds to the business unit that they enter on the transaction, and any data that was assigned to the Common Set. For example, for transactions for the Marketing\_Japan business unit, grades, locations, and departments from the Mktg\_Japan\_Set will be available to select, as well as from the Common Set.

When using jobs at the transaction level, users will be able to select jobs from the Jobs set and from the Common Set when they enter one of the Sales business units on the transaction. For example, when a manager hires an employee for the Sales\_India business unit, the list of jobs will be filtered to show jobs from the Jobs set and from the Common Set.

The following figure illustrates what sets of jobs can be accessed when a manager creates an assignment for a worker.



## Creating Reference Data Sets in the Enterprise Structures Configurator: Explained

If you created business units automatically, then the Enterprise Structures Configurator automatically creates reference data sets for you. The Enterprise Structures Configurator creates one reference data set for each business unit. You

can add additional sets, but you cannot delete any of the sets that were created automatically.

A standard set called the Enterprise set is predefined.

### Common Set

The common set is a predefined set that enables you to share reference data across business units. When you select set-enabled data at the transaction level, the list of values includes data in both the common set and the set associated with the data type for the business unit on the transaction. For example, when you create an assignment, the list of values for grades will include both grades in the common set and in the set that is assigned to grades for the business unit in which you creating the assignment.

## Jobs and Positions: Critical Choices

Jobs and positions represent roles that enable you to distinguish between tasks and the individuals who perform those tasks. The key to whether to use jobs or positions is how each is used. Positions offer a well-defined space independent of the person performing the job. Jobs are a space defined by the person. A job can be defined globally in the Common Set, whereas a position is defined within one business unit.

You can update the job and department of a position at any time. This is useful if you hire someone into a new role and want to transfer the position to another department.

During implementation, one of the earliest decisions you will make is whether to use jobs or a combination of jobs and positions. The determinants for this decision are:

- The primary industry of your enterprise
- How you manage your people

### Primary Industry of Your Enterprise

Primary industries and how they usually set up their workforce are listed in the table below.

Primary Industry	Workforce Setup
Mining	Positions
Utilities	Positions
Manufacturing	Positions
Retail Trade	Positions
Transportation and Warehousing	Positions
Educational Services	Positions
Public Transportation	Positions
Agriculture, Forestry, Fishing, and Hunting	Jobs

Construction	Jobs
Wholesale Trade	Jobs
Information	Jobs
Finance and Insurance	Jobs
Professional, Scientific, and Technical Services	Jobs
Management of Companies and Enterprises	Jobs
Administrative and Support and Waste Management and Remediation Services	Jobs
Arts, Entertainment, and Recreation	Jobs
Accommodation and Food Services	Jobs
Other Services (Except Public Administration)	Jobs

## Management of People

The following table displays suggestions of whether to use jobs or a combination of jobs and positions based on your industry and how you manage your employees when there is turnover.

Industry	We always replace employees by rehiring to same role	We replace the head count, but the manager can use the head count in a different job	We rehire to the same position, but the manager can request a reallocation of budget to a different post
Project (An industry that supports project-based forms of organization in which teams of specialists from both inside and outside the company report to project managers.)	Positions	Jobs	Jobs
Controlled (An industry that is highly structured in which all aspects of work and remuneration are well organized and regulated.)	Positions	Positions	Positions
Manufacturing	Positions	Jobs	Positions
Retail	Positions	Jobs	Positions
Education	Positions	Jobs	Positions
Other	Positions	Jobs	Jobs

## Positions: Examples

Positions are typically used by industries that use detailed approval rules, which perform detailed budgeting and maintain head counts, or have high turnover rates.

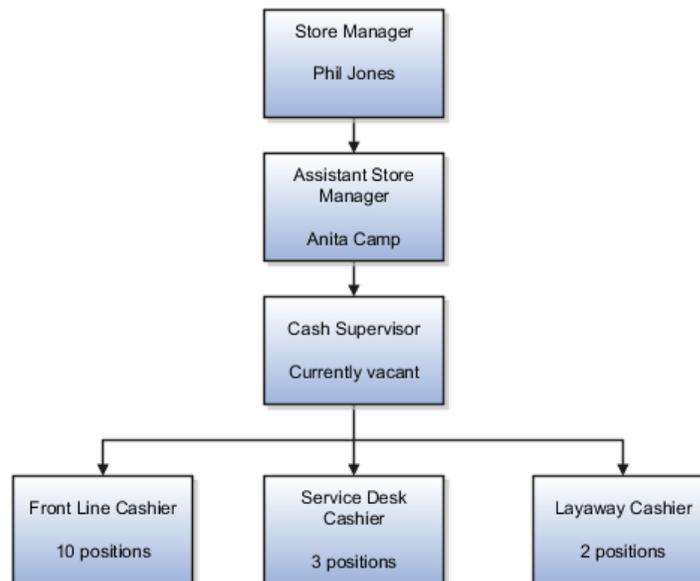
## Retail Industry

ABC Corporation has high turnover. It loses approximately 5% of their cashiers monthly. The job of cashier includes three positions: front line cashier, service desk cashier, and layaway cashier. Each job is cross trained to take over another cashier position. When one cashier leaves from any of the positions, another existing cashier from the front line, service desk or layaway can assist where needed. . But to ensure short lines and customer satisfaction, ABC must replace each cashier lost to turnover.

Since turnover is high in retail it is better for this industry to use positions. There is an automatic vacancy when an employee terminates employment. The position exists even when there are no holders. This is important if the person who leaves the company is a manager or supervisor with direct reports. All direct reports continue reporting to the position even if it is empty. You do not need to reassign these employees to another manager or supervisor; the replacement manager is assigned to the existing position.

Also, an advantage to using positions is that when you hire somebody new many of the attributes are defaulted in from the position. This speeds up the hiring process.

This figure illustrates the retail position setup.

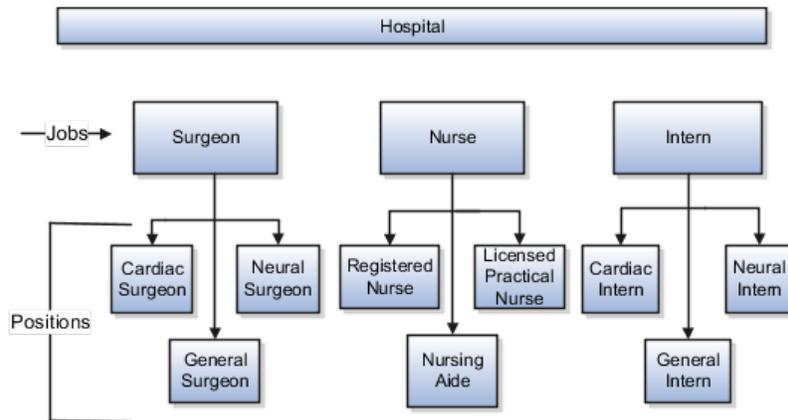


## Health Care Industry

The hospital has a structured head count and detailed budgeting. For example, a specific number of surgeons, nurses, and interns of various types are needed. These positions need to be filled in order for the hospital to run smoothly. Use jobs and positions if you need to apply detailed head count rules.

Health care is an industry that needs to regulate employment, roles, and compensation according to strict policies and procedures. Fixed roles tend to endure over time, surviving multiple incumbents. Industries that manage roles rather than individuals, where roles continue to exist after individuals leave, typically model the workforce using positions.

This figure illustrates the hospital position setup.



## Jobs: Example

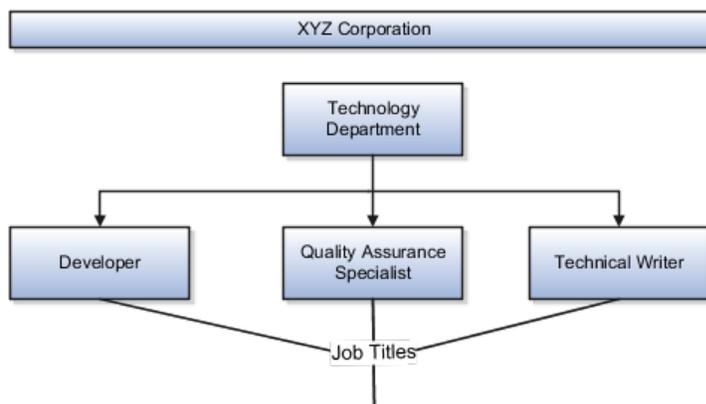
Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

### Software Industry

For example, XYZ Corporation has a director over the departments for developers, quality assurance, and technical writers. Recently, three developers have left the company. The director decides to redirect the head count to other areas. Instead of hiring all three back into development, one person is hired to each department, quality assurance, and technical writing.

In software industries, the organization is fluid. Using jobs gives an enterprise the flexibility to determine where to use head count, because the job only exists through the person performing it. In this example, when the three developers leave XYZ Corporation, their jobs no longer exist, therefore the corporation has the flexibility to move the headcount to other areas.

This figure illustrates the software industry job setup.



## Job and Position Structures: Explained

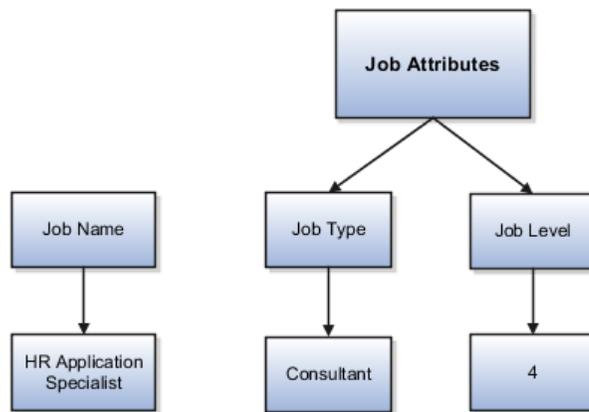
Job and position structures identify the descriptive flexfield structure that enables you to specify additional attributes that you want to capture when you

define jobs and positions. Job and position attributes provide further detail to make jobs and positions more specific. You also use attributes to define the structure of your jobs and positions. You can specify attributes at the enterprise level for jobs and positions, at the business unit level for positions, and at the reference data set level for jobs. Job and position structures are optional.

### Enterprise-Level Job Attributes

When you define a job, you enter a value for the name of the job. To make job names more specific, set up attributes that enable you to identify additional details about the job, such as the nature of the work that is performed or the relative skill level required for the job. If these attributes apply to all jobs within your enterprise, set up enterprise-level job attributes. Standard capabilities mean that you can use the different segments of the name to identify common jobs or job holders for analysis or compensation, or for grouping records in reports, for example, to find all jobs of a specific job type. You should not use attributes with values that change regularly, for example, salary ranges or expense approval levels that change every year.

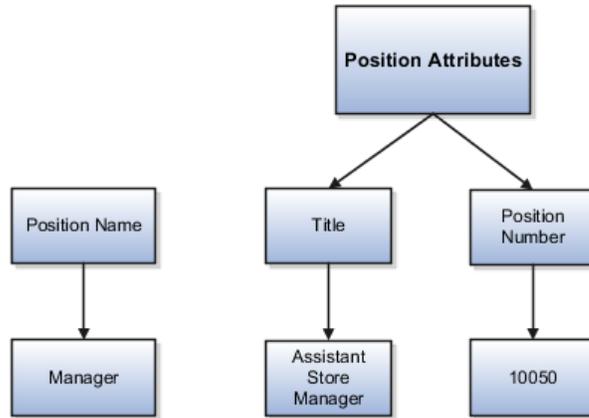
This figure illustrates how job type and job level provide further details for the HR Application Specialist job.



### Enterprise-Level Position Attributes

Position attributes at the enterprise level are similar to those for jobs. Each position that you define identifies a specific role in the enterprise, which you can manage independently of the person in the position, and it will belong to one specific department or organization. The name of each position must be unique. To simplify the process of managing unique names for positions, set up enterprise-level attributes to identify separate components of the position name. For example, you can set up an attribute for position title and one for position number. When defining the attributes that make up the structure of a position name you should also consider if any of your attributes are part of the definition of a common job type. Using job types for a position can help you manage common information that applies to many different positions. For example you can define a job type of Manager.Level 1 and use this for comparison of positions across departments or lines or business, or for setting common job requirements. You can then define multiple manager type positions in your HR department, each of which has responsibility for a different management function or group.

This figure illustrates how title and position number provide further details for the manager position.



### Business Unit-Level Attributes for Positions

If you have information that you want to capture for positions that is specific to each business unit, then you can define attributes at the business unit level for positions. When you create positions, these attributes appear in addition to any enterprise-level attributes. For example, you may want to identify the sales region for all positions in the sales business unit. You can set up a text attribute called Sales Region and use it to enter the necessary information when creating positions for the sales business unit.

### Reference Data Set-Level Attributes for Jobs

If you have information for jobs that applies to specific reference data sets, set up attributes for jobs at the reference data set level. When you create jobs, these attributes appear in addition to any enterprise-level attributes. For example, you may want to identify all information technology (IT) jobs within a specific set. You can set up a text attribute called Function and use it to enter IT in jobs that you create that perform an IT function within a specific set.

## FAQs for Define Initial Configuration

### What happens if I don't use the Enterprise Structures Configurator to set up my enterprise structures?

The Enterprise Structures Configurator is an interview-based tool that guides you through setting up divisions, legal entities, business units, and reference data sets. The tool also enables you to assign reference data sets to business units and locations. You can set up multiple configurations to perform what-if scenarios, and then print each configuration to compare the resulting enterprise structure. If you do not use the Enterprise Structures Configurator, then you must set up your enterprise structure using the individual tasks that correspond to each enterprise component. In addition, you will not be able to set up multiple configurations and compare different scenarios. It is recommended that you use the Enterprise Structures Configurator.

### What's an ultimate holding company?

The legal entity that represents the top level in your organization hierarchy, as defined by the legal name entered for the enterprise. This designation is used

only to create an organization tree, with the ultimate holding company as the top level, divisions and country holding companies as the second level, and legal employers as the third level.

### **What's the default reference data set?**

The reference data set that is assigned to a business unit for all reference data groups, such as grades, locations, departments, and jobs. You can override the default reference data set for any reference data group.

### **What happens if I override the set assignment?**

For the selected business unit, you can override the default reference data set for one or more reference data groups. For example, assume you have three reference data groups: Vision 1 SET, Vision 2 SET, and Vision 3 SET, where Vision SET 1 is the default set for business unit United Kingdom Vision 1 BU. You can override the default so that grades are assigned to Vision 2 SET, departments are assigned to Vision 3 SET, and jobs are assigned to the default set, Vision 3 SET.

## **Define Reference Data Sharing**

### **Reference Data Sharing: Explained**

Reference data sharing facilitates sharing of configuration data such as jobs and payment terms, across organizational divisions or business units. You define reference data sets and determine how the data is shared or partitioned. Use reference data sets to reduce duplication and maintenance by sharing common data across business entities where appropriate. Depending on the requirement (specific or common), each business unit can maintain its data at a central location, using a set of values either specific to it or shared by other business units.

You can share reference data after it is filtered on the basis of sets. A common reference data set is available as the default set, which can be assigned to several business units sharing the same reference data. For commonly used data such as currencies, you can use the common reference data set and assign it to multiple business units in various countries that use the same currency. In cases where the default set cannot be assigned to an entity, you can create specific sets. The data set visible on the transactional page depends on the sharing method used to share reference data.

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of managers in different business units setting up the same grades, XYZ Corporation decides to create a set called Grades and assign the grades reference data group for all business units in the organization to the Grades set, so that the grades can be shared.

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#### **Note**

For specific information on configuring reference data sharing for a particular object or product, refer to its product documentation.

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# Reference Data Sets: Explained

Reference data sets are logical groups of reference data that can be accessed by various transactional entities depending on the business context. Oracle Fusion Applications contains a common reference data set as well as an enterprise set that may be used as a default set. Depending on your business requirement you can create and maintain additional reference data sets, while continuing to use the common reference data set.

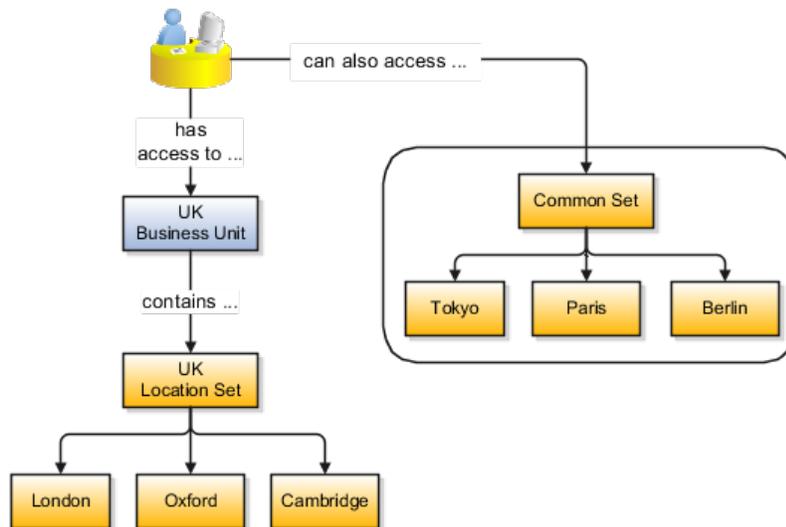
Consider the following scenario.

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

## Partitioning

The partitioning of reference data and creation of data sets enable you to create reference entities across tables or lookup types, and share modular information and data processing options among business units. With the help of partitioning, you can choose to create separate sets and subsets for each business unit depending upon its business requirement, or create common sets or subsets to enable sharing reference data between several business units, without the need for duplicating the reference data. Partitioning provides you the flexibility to handle the reference data in a way appropriate to your business needs.

The following figure illustrates the reference data sharing method (assignment to one set only, with common values) where the user can access the data assigned to a specific set in a particular business unit, as well as access the data assigned to the common set.



# Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses, thereby reducing the administrative burden and decreasing the time needed to implement new business units. For example, you can share sales methods, transaction types, or payment terms across business units or selected other data across asset books, cost organizations, or project units.

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The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly setup data for this entity component. You can establish other business unit reference data in a business unit specific reference data set as needed

## Reference Data Sharing Methods

There are variations in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. The simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. The most commonly used method of sharing reference data that allows defining reference data

object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units without the need to be explicitly assigned the transaction types to each business unit. In addition, you can assign a business unit specific set of transaction types. At transaction entry, the list of values for transaction types includes transaction types from the set assigned to the business unit, as well as transaction types assigned to the common set that is shared across all business units.

- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but the payment term Net 15 is assigned to only your corporate business unit specific set. At transaction entry, the list of values for payment terms consists of only one set of data; the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

## Assigning Reference Data Sets to Reference Objects: Points to Consider

You can assign the reference data sets to reference objects on the Manage Reference Data Set Assignments page. For multiple assignments, you can classify different types of reference data sets into groups and assign them to reference entity objects. The assignment takes into consideration the determinant type, determinant, and reference group, if any.

### Determinant Types

The partitioned reference data is shared based on a business context setting called the determinant type. It is the point of reference used in the data assignment process. The following table lists the determinant types used in the reference data assignment.

Type	Description
Asset Book	Information about the acquisition, depreciation, and retirement of an asset that belongs to a ledger or a business unit.
Business Unit	The departments or organizations within an enterprise.
Cost Organization	The organization used for cost accounting and reporting on various inventory and cost centers within an enterprise.
Project Unit	A logical organization within an enterprise that is responsible for enforcing consistent project management practices.
Reference Data Set	References to other shared reference data sets.

## Determinant

The determinant or determinant value is the value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set. For example, when managing set assignments for the set determinant type, Reference Data Set is the determinant type, and you would enter the corresponding set code value as the corresponding determinant value.

## Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data) that are treated in the same manner because of commonness in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups, based on the functional area and the partitioning requirements that they have in common. For example, all tables and views that define Sales Order Type details might be part of the same reference group.

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### Note

The reference groups are predefined in the reference groups table and are available for selection and assignment.

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## Items and Supplier Site Reference Data Sharing: Explained

Some products required special logic for reference data sharing and have implemented their own domain specific ways for sharing data.

Items and supplier sites are two such product specific reference data objects that use product specific mechanisms to share data.

### Items

If you share your items across warehouses or manufacturing facilities, you can access them through a common item master. Configure one or multiple item masters for your enterprise, based your enterprise structure. A single item master is recommended because it provides simpler and more efficient maintenance. However, in rare cases, it may be beneficial to keep multiple item masters. For example, if you acquire another enterprise and need to continue to operate your lines of business separately, maintaining a second item master might be the best decision.

### Suppliers Sites

You can approve particular suppliers to supply specified commodities and authorize your business units to buy from those suppliers when the need arises. For example, you might be a household cleaning products manufacturer and need dyes, plastics, and perfumes to make your products. You purchase from a central supplier 70% of your perfume supplies with an additional supplier, in reserve, from whom you purchase the remaining 30%. At the same time, each of your business units purchases plastics and dyes from the same supplier, but from different local supplier sites to save transportation costs.

To implement business unit specific supplier sites, Oracle Fusion Procurement supports a method for defining suppliers sites as owned and managed by the business unit responsible for negotiating the supplier terms. Your other business units that have a service provider relationship defined with your procurement business unit, subscribe to the supplier sites using the supplier site assignments feature. In addition, Procurement allows sharing of the following procurement data objects across business units:

- Supplier qualification data, such as approved supplier lists
- Catalog content, such as agreements, smart forms, public shopping lists, and content zones
- Procurement configuration data

## FAQs for Define Reference Data Sharing

### What reference data objects can be shared across business units?

The following list contains the reference data objects for the Oracle Fusion Applications that can be shared across business units and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Trading Community Model	Customer Account Relationship	Assignment to one set only, with common values
Trading Community Model	Customer Account Site	Assignment to one set only, with common values
Trading Community Model	Sales Person	Assignment to one set only, with common values
Opportunity Management	Sales Method Group	Assignment to one set only, with common values
Work Management	Assessment Templates	Assignment to one set only, with common values
Enterprise Contracts	Contract Types	Assignment to one set only, with common values
Sales	Sales Method	Assignment to one set only, with common values
Common Components	Activity Templates	Assignment to one set only, with common values
Payables	Payment Terms	Assignment to multiple sets, no common values allowed
Receivables	Accounting Rules	Assignment to one set only, with common values
Receivables	Aging Buckets	Assignment to one set only, with common values
Receivables	Auto Cash Rules	Assignment to one set only, with common values
Receivables	Collectors	Assignment to one set only, with common values
Receivables	Lockbox	Assignment to one set only, with common values

Receivables	Memo Lines	Assignment to one set only, with common values
Receivables	Payment Terms	Assignment to one set only, with common values
Receivables	Remit To Address	Assignment to one set only, with common values
Receivables	Revenue Contingencies	Assignment to one set only, with common values
Receivables	Transaction Source	Assignment to one set only, with common values
Receivables	Transaction Type	Assignment to one set only, with common values
Advanced Collections	Collections Setups	Assignment to one set only, with common values
Advanced Collections	Dunning Plans	Assignment to one set only, with common values
Tax	Tax Classification Codes	Assignment to one set only, with common values
Performance Management	Performance Templates	Assignment to one set only, with common values
Human Resources	Departments	Assignment to one set only, with common values
Human Resources	Jobs	Assignment to one set only, with common values
Human Resources	Locations	Assignment to one set only, with common values
Human Resources	Grades	Assignment to one set only, with common values
Project Billing	Project and Contract Billing	Assignment to multiple sets, common values not allowed
Project Foundation	Project Accounting Definition	Assignment to one set only, no common values allowed
Project Foundation	Project Rates	Assignment to one set only, with common values
Distributed Order Orchestration	Hold Codes	Assignment to one set only, with common values
Distributed Order Orchestration	Orchestration Process	Assignment to one set only, with common values

### What reference data objects can be shared across asset books?

The following list contains the reference data objects for Oracle Fusion Assets that can be shared across asset books and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Assets	Bonus Rules	Assignment to one set only, no common values allowed

Assets	Depreciation Ceilings	Assignment to one set only, no common values allowed
Assets	Depreciation Methods	Assignment to one set only, with common values
Assets	Asset Descriptions	Assignment to one set only, no common values allowed
Assets	Property Types	Assignment to one set only, with common values
Assets	Prorate Conventions	Assignment to one set only, no common values allowed
Assets	Asset Queue Names	Assignment to one set only, with common values
Assets	Retirement Types	Assignment to one set only, with common values
Assets	Unplanned Types	Assignment to one set only, with common values

### What reference data objects can be shared across cost organizations?

The following list contains the reference data objects for Oracle Fusion Cost Management that can be shared across cost organizations and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Cost Management	Cost Structure	Assignment to one set only, no common values allowed

### What reference data objects can be shared across project units?

The following list contains the reference data objects for Oracle Fusion Project Foundation that can be shared across project units and the method in which the reference data for each is shared.

Application Name	Reference Data Object	Method of Sharing
Project Foundation	Project Definition	Assignment to multiple sets, no common values allowed
Project Foundation	Project Transaction Types	Assignment to multiple sets, no common values allowed

## Define Enterprise: Manage Enterprise HCM Information

### Enterprise: Explained

An enterprise consists of legal entities under common control and management.

## **Enterprise Defined**

When implementing Oracle Fusion Applications you operate within the context of an enterprise that has already been created in the application for you. This is either a predefined enterprise or an enterprise that has been created in the application by a system administrator.

An enterprise organization captures the name of the deploying enterprise and the location of the headquarters. There is normally a single enterprise organization in a production environment. Multiple enterprises are defined when the system is used to administer multiple customer companies, for example, multiple tenants, or when a customer chooses to set up additional enterprises for testing or development.

Oracle Fusion Applications offers capabilities for multiple tenants to share the same applications instance for some human resources processes. If you offer business process outsourcing services to a set of clients, each of those clients may be represented as an enterprise within an Oracle Fusion Application instance. To support this functionality, system owned reference data such as sequences, sets, and flexfields are also defined within an enterprise.

In Oracle Fusion Applications, an organization classified as an enterprise is defined before defining any other organizations in the HCM Common Organization Model. All other organizations are defined as belonging to an enterprise.

## **Managing Enterprise Information for Non-Oracle Fusion HCM Users: Explained**

The Manage Enterprise HCM Information task includes default settings for your enterprise such as the employment model, worker number generation, and so on. If you are not implementing Oracle Fusion Human Capital Management (HCM), then the only action you may need to perform using this task is to change the enterprise name, if necessary. The other settings are HCM-specific and are not relevant outside of Oracle Fusion HCM.

## **Define Enterprise: Manage Locations**

### **Locations: Explained**

A location identifies physical addresses of a workforce structure, such as a department or a job. You can also create locations to enter the addresses of external organizations that you want to maintain, such as employment agencies, tax authorities, and insurance or benefits carriers.

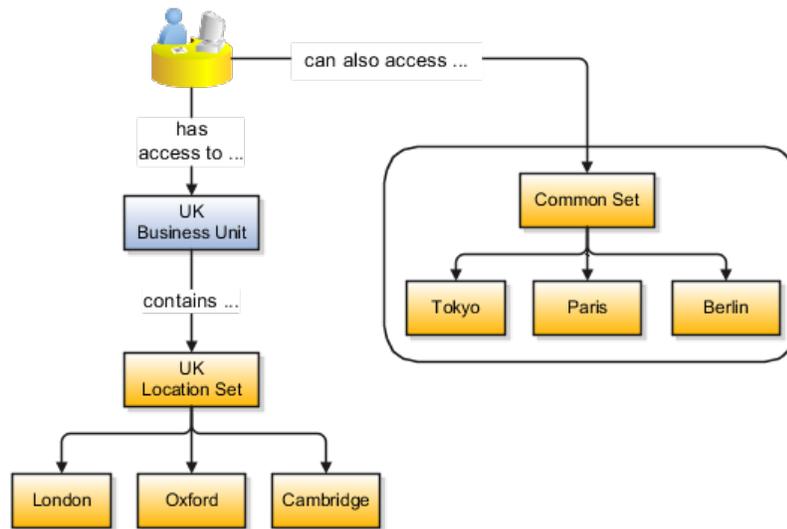
The locations that you create exist as separate structures that you can use for reporting purposes, and also in rules that determine employee eligibility for various types of compensation and benefits. You enter information about a location only once. Subsequently, when you set up other workforce structures you select the location from a list.

## Location Sets

When you create a location, you must associate it with a set. Only those users who have access to the set's business unit can access the location set and other associated workforce structure sets, such as those that contain departments and jobs.

You can also associate the location to the common set so that users across your enterprise can access the location irrespective of their business unit. When users search for locations, they can see the locations that they have access to along with the locations in the common set.

The following figure shows how locations sets restrict access to users.



## Creating Multiple Locations Simultaneously

If you have a list of locations already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, then add your location information to the spreadsheet, and then upload directly to your enterprise configuration. You can upload the spreadsheet multiple times to accommodate revisions.

## FAQs for Manage Locations

### Why can't I see my location in the search results?

You can search for approved locations only. Also, if you created a location in Oracle Fusion Trading Community Model, then you can't access that location from Oracle Fusion Global Human Resources. For use in Oracle Fusion HCM, you must recreate the location from the Manage Locations page.

### What happens if I select a geographic hierarchy node when I'm creating or editing a location?

The calendar events that were created for the geographical node start to apply for the location and may impact the availability of worker assignments at

that location. The geographical hierarchy nodes available for selection on the Locations page display from a predefined geographic hierarchy.

### **What happens if I select an inventory organization when I'm creating or editing a location?**

The location is available for selection in purchase documents of that inventory organization in Oracle Fusion Inventory Management. If you don't select an inventory organization, then the location is available in purchase documents across all inventory organizations.

### **What happens if I inactivate a location?**

Starting from the effective date that you entered, you can no longer associate the location with other workforce structures, assignments, or applications. If the location is already in use, it will continue to be available to the components that currently use it.

### **How can I associate a location with an inventory organization?**

From the Manage Locations page in Oracle Fusion Global Human Resources.

To appear on the Create or Edit Location pages, your inventory organization must be effective on today's date and must exist in the location set that you selected.

## **Define Geographies**

### **Defining Address Cleansing: Explained**

Address cleansing provides a way to validate, correct, and standardize addresses that are entered in a user interface. Geography validation only validates the geography attributes of an address, for example, State, City, and Postal codes; address cleansing validates both the geography attributes and the address line attributes.

Address cleansing can only be used through the Oracle Fusion Trading Community Data Quality product, because the feature is delivered using Data Quality integration. You need to ensure that you have a license for the countries that will use Trading Community Data Quality data cleansing.

You can specify the real time address cleansing level for each country by choosing either **None**, meaning that there is no real time address cleansing, or by choosing **Optional**, meaning that you will have the choice to cleanse addresses. Once you have enabled address cleansing for a country a **Verify Address** icon appears at address entry points in the application. You can then click the icon to perform address cleansing and receive a corrected, standardized address. If Trading Community Data Quality does not find a matching address the application will alert you.

# Geography Structure, Hierarchy, and Validation: How They Fit Together

There are three components that are dependent on each other when defining a country: geography structure, geography hierarchy, and geography validation. Every country has to have the geography structure defined first before the hierarchy can be defined, and the geography hierarchy has to be defined before the validation can be defined.

## Geography Structure

Firstly, you need to create a geography structure for each country to define which geography types are part of the country structure, and how the geography types are hierarchically related within the country structure. For example, you can create geography types called State, City, and Postal Code. Then you can rank the State geography type as the highest level within the country, the City as the second level, and the Postal Code as the lowest level within the country structure. Geography structure can be defined using the **Manage Geographies** task, or can be imported using tasks in the **Define Geographies** activity.

## Geography Hierarchy

Once the geography structure is defined, the geographies for each geography type can be added to the hierarchy. For example, below the United States you can create a geography called California using a State geography type.

As part of managing the geography hierarchy you can view, create, edit, and delete the geographies for each geography type in the country structure. You can also add a primary and alternate name and code for each geography. A geography hierarchy can be created using the **Manage Geographies** task, or can be imported using tasks in the **Define Geographies** activity.

## Geography Validation

After defining the geography hierarchy, you need to specify the geography validations for the country. You can choose which address style formats you would like to use for the country, and for each selected address style format you can map geography types to address attributes. You can also select which geography types should be included in geography or tax validation, and which geography types will display in a list of values during address entry in other user interfaces. The geography validation level for the country, such as error or warning, can also be selected.

## Geography Structures: Explained

A geography structure is a hierarchical grouping of geography types for a country. For example, the geography structure for the United States is the geography type of State at the top, then followed by the County, then the City, and finally the Postal Code.

You can use the geography structure to establish:

- How geographies can be related
- The types of geographies you can define for the country

## How Geographies Can Be Related

You can determine how a country's geographies are hierarchically related by creating the hierarchy of the geography types in the geography structure. When you define a country's structure the country geography type is implicitly at the top of the geography structure, and the numbering of the subsequent levels start with 1 as the next geography level after country.

You must add a geography type as a level in the country structure before you can define a geography for that geography type in a country. For example, before defining the state of California, the State geography type must be added to the United States country structure. Only one geography type can be used for each level, you cannot define more than one geography type at the same level.

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### Note

After you first define a country structure you can only add geography types below the current lowest level, and delete geography types without defined geographies.

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To simplify the creation of a country structure you can copy a structure from another country, and then amend the geography type hierarchy for the country.

## The Types of Geographies You Can Define for the Country

The application provides you with a set of available master reference geography types. If required, you can create a geography type before adding it to the country structure. Each geography type is added below the current lowest level.

---

### Note

If you want to delete a geography type that is not at the lowest level in the country structure, then you have to delete the geography type level and all the levels below it.

---

A geography type that you create within the country structure can be used for other country structures as well.

## Geography Hierarchy: Explained

Geography hierarchy is a data model that lets you establish conceptual parent-child relationships between geographies. A geography, such as Tokyo or Peru, describes a boundary on the surface of the earth. The application can extrapolate information based on this network of hierarchical geographical relationships.

For example, in the geography hierarchy the state of California is defined as the parent of San Mateo county, which is the parent of Redwood City, which is

the parent of the postal code 94065. If you enter just 94065, the application can determine that the postal code is in California, or that the corresponding city is Redwood City.

The application leverages geography hierarchy information to facilitate business processes that rely on geography information, for example, tax calculation, order sourcing rules, sales territory definition. The geography hierarchy information is centrally located in the Trading Community Model and shared among other application offerings.

The top level of the geography hierarchy is Country, so the hierarchy essentially contains countries and their child geographies. Other aspects of the geography hierarchy include:

- Geography
- Geography type
- Geography usage
- Master reference geography hierarchy
- User defined zones

## **Geography**

A geography is a boundary such as a country, state, province or city. It is a physical space with boundaries that is a defined instance of a geography type. For example, San Jose is a geography of the City geography type.

## **Geography Type**

Geography types are a divisional grouping of geographies, which can be either geopolitical (for example, City, Province, and District) or user defined (for example, Continent, Country Regions, Tax Regions).

## **Geography Usage**

Geography usage indicates how a geography type or geography is used in the application. A master reference geography always has the usage of Master Reference. User defined zones can have the usages of Tax, Shipping, or Territory, based on what is relevant for their purpose.

## **Master Reference Geography Hierarchy**

The geography hierarchy data is considered to be the single source of truth for geographies. It is all the data, including geography types and geographies, that you define and maintain in the Trading Community Model tables.

The geography usage for the entire hierarchy is the master reference, and defined geography types and geographies are considered as master reference geography types and geographies. For example, Country is a universally recognized geography type, and United States is considered a master geography.

## User Defined Zones

User defined zones are a collection of geographical data, created from master reference data for a specific purpose. For example, territory zones are collections of master reference geographies ordered in a hierarchy. Tax and shipping zones are collections of master reference geographies without a hierarchical grouping.

## Geography Validation: Explained

Geography validation determines the geography mapping and validation for a country's address styles, as well as the overall geography validation control for a country.

The **No Styles Format** address style format is the default address style format for a country. By defining the mapping and validation for this format you will ensure that validations can be performed for any address in the country. After the **No Styles Format** is defined you can set up additional mapping for specific address styles.

For each address style format, you can define the following:

- Map to attribute
- Enable list of values
- Tax validation
- Geography validation
- Geography validation control

### Map to Attribute

For every address style format, you can map each geography type to an address attribute. For example, you can map the **State** geography type to the **State** address attribute for the United States, or map the **State** geography type to the **County** address attribute for the United Kingdom. The geography types that appear are based on how the country structure is defined. The list of address attributes that appear are based on address formats delivered with the application, or your customer defined address formats.

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### Note

You only need to map geography types that you want to use for geography or tax validation purposes.

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### Enable List of Values

Once a geography type is mapped to an attribute, then you can specify whether the geography type will appear in a list of values during address entry in user interfaces. It is very important to review carefully if you want to enable a list of values. You should only enable a list of values if you have sufficient geography data imported or created for that geography. Once you have enabled a list of

values for an address attribute, you can only select the geography data available for the geography type. This means that if a specific geography value is not available in the geography hierarchy, you cannot create an address with a different geography value.

## Tax Validation

You can also specify whether a geography type will be included in tax validation. For example, for the United States North America address style format you specify that County, State, and City are used for tax validation. This will mean that when a transaction involves an address with the North America address style, the address must have the correct county, state, and city combination based on the geography hierarchy data, to be considered valid for tax calculation.

## Geography Validation

You can specify whether a geography type will be included in geography validation. This will mean that, for example, when the user enters a United States address using the North America address style format, the address must have the correct country, state, and postal code combination based on geography hierarchy data to be considered geographically valid.

If an address element is mapped to a geography type, but not selected for geography validation usage, then during address entry suggested values will be provided for the address element, but the address element will not be validated.

---

### Note

For either the tax or geography validation, do not skip more than one consecutive level unless you are certain that the selected geography types can uniquely identify geographies. For example, the United States country structure is: State, County, City, and Postal Code, and you want to select just State and Postal Code for geography or tax validation. However, for the combination of California and 94065, the city can be either Redwood Shores or Redwood City. In this case, you should also select at least the City geography type for geography or tax validation.

---

## Geography Validation Control

You can select the geography validation level for a country. Validation will check if the entered address maps to the geography hierarchy data available for the country, and the geography validation control determines whether you can save an address that did not pass validation during address entry. For example, if the validation level is **Error**, then an address cannot be saved if the values do not match the geography hierarchy data.

These are the geography validation levels you can choose:

- **Error** - only completely valid addresses can be saved, with all mandatory address elements entered.
- **No Validation** - all addresses can be saved including incomplete and invalid addresses.

Regardless of the result of validation, the validation process will try to map any address attribute to a geography of the country, and store any mapping it could establish based on the available data. This is called **Geography Name Referencing** and it is executed as part of validation. The result of this referencing is used in several business processes in the application to map an address to a specific geography or zone.

---

**Note**

The Geography Dimension value in territories is derived from sell-to addresses of sales accounts. To use geography dimensions in territories, ensure that the geography elements in addresses, such as state, city, and postal code, are validated. You can do so by enabling geography validation for each country using the Manage Geographies task. While doing so, ensure that at least one level in the geography hierarchy is enabled for geography validation. It is recommended that you enable geography validation for all geography levels that you intend to use for territory definition for each country. You can enable a list of values containing specific geography elements. This will help users search and select appropriate geography values during addresses entry and eliminate all possibilities of wrong address entry. You can also set geography validation control to Error in the Manage Geography Validation page. This ensures that users can only use valid geography elements in addresses. If you have already created addresses before setting up geography validation for a country, you must execute the Run Maintain Geography Name Referencing task for that country after enabling geography validation to ensure that all your geography elements are validated.

---

## Importing Geographies: Explained

A geography, such as Tokyo or Peru, describes a boundary on the surface of the earth. You can create new geographies by importing data through interface tables. There are two options for populating the interface tables: using the tool of your preference to load the data or using file-based data import. If you plan to provide the data details in a source file, use the file-based import feature. If you will populate the interface table directly, run the geography loader process to import the data. Having a good understanding of the import entity, interface table, and destination table will help you prepare your import data.

Consider the following when importing geographies:

- File-based import option
- Geography loader process option
- Import object entity, interface table, and destination tables

### File-Based Import Option

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the geography import object, create source file mappings, and schedule the import activities.

## Geography Loader Process Option

Populate the interface table with your import data, then navigate to the **Run Geography Loader Setup and Maintenance** task to schedule the import of data from the interface table to the destination table.

### Import Object Entity, Interface Table, and Destination Tables

The geography import object consists of one entity and interface table that forms the geography. If you are using file-based import, you can map your source file data to import entity attributes that correspond to the interface table columns. The import activity process populates the interface table based on the mapping and your source file. If using the geography loader scheduled process, populate the interface table directly using your preferred tool. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

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#### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

The following lists the object entity, tables, and resulting application object:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
ImpGeography	HZ_IMP_GEOGRAPHIES	HZ_GEOGRAPHIES HZ_GEOGRAPHY_IDEN HZ_GEOGRAPHY_TYPE HZ_HIERARCHY_NODE	Geography

## Importing Geographies Using File-based Data Import: Worked Example

This example demonstrates how to import data using the File-Based Data Import tool. In this particular example you have a source file containing geography data that you want to import into the application, so that the geography data can be used for uses related to locations, such as real time address validation and tax purposes.

The following table summarizes the key decisions for this scenario:

Decisions to Consider	In This Example
What type of object are you importing?	Geography
What file type are you using for your source data?	Text file

Where are you uploading your source data file from?	Your desktop
What data type is your source data file?	Comma separated
Which fields are you importing into Oracle Fusion applications?	All, except for the RecordTypeCode field
When do you want to process the import?	Immediately

These are the steps that are required to create an import activity and submit the import:

1. Determine what information is in the source file.
2. Create and schedule the import activity.
3. Monitor the import results.

### Prerequisites when importing additional geography data after your initial import

1. You need to ensure that the combination of Source ID and Parent Source ID values are unique for each row of data within a single import. However, your source data files do not need to have the same Source ID and Parent Source ID values as your previously imported geography data. If the geography structure levels and the parents for each geography value are the same, the changed IDs will not affect the import.
2. Ensure that all of the parents of a child geography are included in your data file so that the child geography can be added. For example, if you originally imported US, CA, and San Francisco, and now you want to import the city of San Jose in CA, then your data file needs to include US, CA, and San Jose.
3. Check that your source data file has the correct values for the geography data that you have already loaded. For example, if your initial import included the value US for country and CA as state, and in a subsequent import you have California as a state, your geography import will result in two state records (CA and California) in the application data, with the US as the country parent.

### Determine what information is in the source file

1. Your source geography data files should include a unique Source ID value for each row of data, and a Parent Source ID value which identifies the parent of that row of geography data. Source IDs, or Parent Source IDs, should not exceed 18 characters. An example of geography source data could be as follows:

Geography Level	Name	Source ID	Parent Source ID
1 (Country)	US	1	
2 (State)	CA	11	1
3 (County)	Alameda	111	11
4 (City)	Pleasanton	1111	111
4 (City)	Dublin	1112	111

## Create and schedule the import activity

You create an import activity, enter the import details, and schedule the import. An import activity definition provides the instructions for the import processing - this includes selecting the source file, or file location; mapping fields from the source file to the Oracle Fusion object and attribute; and scheduling the import.

1. Navigate to Setup and Maintenance and search for the Manage File Import Activities task. Click **Go to Task**.
2. In the Manage Import Activities page, click the **Create** icon.
3. In the Create Import Activity: Set Up page, create an import activity for the Geography object type by completing the fields, as shown in this table:

Field	Value
Name	Master Reference Geographies
Object	Geography
File Type	Text File
File Selection	Specific file
Upload From	Desktop
File Name	Choose relevant file from desktop
Data Type	Comma separated

---

### Note

Ensure that the file type that you select in the Create Import Activity: Set Up page matches the file type of the source data file.

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4. Click **Next**.
5. On the Create Import Activity: Map Fields page, map each field from your source file to the Oracle Fusion object and attribute, as shown in this example:

Column Header	Example Value	Ignore	Object	Attribute
Primary Geography Name	Primary Geography Name	United States	Imp Geography	Primary Geography Name
Country Code	US	No	Imp Geography	Country Code
Record Type Code	0	Yes	Imp Geography	Record Type Code
Source ID	10265	No	Imp Geography	Source ID
Parent Source ID	1053	No	Imp Geography	Parent Source ID

If you do not want to import a column in the text file you can select **Ignore**.

---

**Note**

If you have any difficulties mapping the fields from your source file to the relevant Oracle Fusion applications object, you can use the import object spreadsheets for reference.

---

6. Click **Next**.
7. On the Create Import Activity: Create Schedule page, select **Immediate** in the Schedule field so that the import will start immediately.

Instead of immediately importing the data, you can choose a date and time to start the import. You can also specify if the import will be repeated, and the frequency of the repeated import.

8. Click **Next**.

## Monitor the import results

You monitor the progress of the Import Activity processing, and view completion reports for both successful records and errors.

1. On the Create Import Activity: Review and Activate page, you verify your import details in the Import Details, File Details, Import Options, and Schedule sections.
2. Your import details are correct so you click **Activate** to submit the import.

Once the import activity has completed, the Status field value will change to **Completed**.

## Importing and Exporting Territory Geography Zones: Explained

Territory geography zones are geographical boundaries that you can set up to replicate your organization's regions, such as a Pacific Northwest sales region. You can set up territory geography zones in one Oracle Fusion applications instance, and then after the territory geography zones are defined you can export the territory zones and import them into another Oracle Fusion applications instance.

To define your territory geography zones and then import your territory zones into another Oracle Fusion applications instance, you need to complete the following steps:

1. Import the master reference geography data into the Oracle Fusion application.
2. Define your territory geography zones using the Manage Territory Geographies task.
3. Export the territory geography zones.

4. Import the territory geography zones into another Oracle Fusion applications instance.

### **Import the master reference geography data**

Firstly, you need to import the master reference geography data. Master reference geography data consists of geography elements such as country, state, and city, and is required for any geographical information you store in the application, such as address information used in customer and sales records. For more information, refer to the Geography Hierarchy: Explained topic listed in the related topics section. Master reference geography data can be imported into the application using the Manage File Import Activities task in Setup and Maintenance - refer to the Importing Master Reference Geography Data: Worked Example topic listed in the related topics section for more information.

### **Define your territory geography zones**

Once the master reference geography data has been imported, you can then create your territory geography zones in the application using the Manage Territory Geographies task in Setup and Maintenance. For more information, refer to the Managing Territory Geographies: Worked Example topic listed in the related topics section.

### **Export the territory geography zones**

Once you have completed importing the master reference geography data and defining your territory geography zone tasks, you can create a configuration package to export the territory zone data. For more information, refer to the Exporting Setup Data demo listed in the related topics section.

### **Import the territory geography zones**

Once you have downloaded your configuration package for your territory geography zone setup, you can import the territory zones into another Oracle Fusion application instance. For more information, refer to the Importing Setup Data listed in the related topics section.

---

#### **Note**

Ensure that you import your master reference geography data into the new Oracle Fusion instance before you import the configuration package.

---

## **Managing Geography Structures, Hierarchies, and Validation: Worked Example**

This example shows how to start the configuration of the geography structure, hierarchy, and validation for the country geography of the United Kingdom.

The following table summarizes the key decisions for this scenario.

Decisions to Consider	In This Example
Copy an existing country structure?	No, create a new country structure.
What is the structure of the geography types?	Create geography types with the following ranking structure:  1. County 2. Post Town
What is the geography hierarchy?	Create the following hierarchy:  1. Country of United Kingdom 2. County of Berkshire 3. Post Town of Reading
Which address style format will you use when mapping geography validations?	The default address style format, called the No Styles Format.
Are you using Oracle Fusion Tax for tax purposes?	No, do not select <b>Tax Validation</b> for the geography types.

Add the County and Post Town geography types to the geography structure. Then add the geographies for the County and Post Town geography types to define the geography hierarchy. Finally, specify the geography validations for the geography types you have added to the geography structure.

## Defining the geography structure

You add the County and Post Town geography types to the United Kingdom geography structure.

1. On the Manage Geographies page, enter GB in the **Code** field. Click **Search**.
2. On the Manage Geographies page, click **Structure Defined**.
3. On the Manage Geography Structure page, click the **Create** button next to the **Copy Country Structure From** field.
4. In the Geography Structure section, select the County list item in the **Add Geography Type** field.
5. Click **Add**.
6. Select the Post Town list item in the **Add Geography Type** field.
7. Click **Add**.

## Defining the geography hierarchy

You want to begin to create the geography hierarchy for the United Kingdom, so you add the geographies for the County and Post Town geography types using the geography hierarchy User Interfaces. You can also use the Manage File Import Activities task to import geography hierarchies using a csv or xml file.

1. On the Manage Geographies page, enter GB in the **Code** field. Click **Search**.
2. On the Manage Geographies page, click **Hierarchy Defined**.
3. On the Manage Geography Hierarchy page, Geography Hierarchy section, click the United Kingdom to highlight the table row.

4. Click the **Create** button.
5. In the **Create County** page, Primary and Alternate Names section, enter Berkshire in the **Name** field.
6. Click **Save and Close**.
7. On the Manage Geography Hierarchy page, Geography Hierarchy section, click Berkshire to highlight the table row.
8. Click the **Create** button.
9. In the **Create Post Town** page, Primary and Alternate Names section, enter Reading in the **Name** field.
10. Click Save and Close.

## Defining the geography validations

Now you want to specify the geography validations for the geography types you have added to the United Kingdom. You define the geography mapping and validation for the United Kingdom default address style format. You map the geography types to attributes, enable the geography types for Lists of Values and Geography validation, and set the geography validation level.

1. On the Manage Geographies page, click **Validation Defined**.
2. On the Manage Geography Validation page, Address Style section, click **No Styles Format** to highlight the table row.
3. For the County geography type, click the **County** list item in the **Map to Attribute** field.
4. Click the **Enable List of Values** option for the County geography type.
5. Click the **Geography Validation** option for the County geography type.
6. For the Post Town geography type, click the **City** list item in the **Map to Attribute** field.
7. Click the **Geography Validation** option for the Post Town geography type.
8. In the Geography Validation Control section, click the **Error** list item in the **Geography Validation Level for Country** field.
9. Click **Save and Close**.

## FAQs for Define Geographies

### When do I define address cleansing?

When address data entered into the application needs to conform to a particular format, in order to achieve consistency in the representation of addresses. For example, making sure that the incoming data is stored following the correct postal address format.

### Why can't I update a geography structure by copying an existing country structure?

You can only update a geography structure by adding existing geography types, or by creating new geography types and then adding them to the geography

structure. You can only copy an existing country structure when you are defining a new country structure.

### **Why can't I delete a level of the country geography structure?**

If a geography exists for a country geography structure level then you cannot delete the level. For example, if a state geography has been created for the United States country geography structure, then the State level cannot be deleted in the country geography structure.

### **Can I add any geography to the geography hierarchy?**

Yes. However, the geography type for the geography that you want to add must be already added to the country geography structure.

### **Can I edit a specific geography in the geography hierarchy?**

Yes. In the Manage Geography Hierarchy page you can edit details such as the geography's date range, primary and alternate names and codes, and parent geographies.

### **How can I add a geography that is the level below another geography in a geography hierarchy?**

Select the geography that you want your geography to be created below, and then click the **Create** icon. This will allow you to create a geography for a geography type that is the level below the geography type you selected. The structure of the country's geography types are defined in the Manage Geography Structure page.

## **Define Legal Jurisdictions and Authorities**

### **Jurisdictions and Legal Authorities: Explained**

You are required to register your legal entities with legal authorities in the jurisdictions where you conduct business. Register your legal entities as required by local business requirements or other relevant laws. For example, register your legal entities for tax reporting to report sales taxes or value added taxes.

#### **Legal Jurisdictions and Authorities**

Define jurisdictions and related legal authorities to support multiple legal entity registrations, which are used by Oracle Fusion Tax and Oracle Fusion Payroll. When you first create a legal entity, the Oracle Fusion Legal Entity Configurator automatically creates one legal reporting unit for that legal entity with a registration.

### **Jurisdictions: Explained**

Jurisdiction is a physical territory such as a group of countries, country, state, county, or parish where a particular piece of legislation applies. French Labor

Law, Singapore Transactions Tax Law, and US Income Tax Laws are examples of particular legislation that apply to legal entities operating in different countries' jurisdictions. Judicial authority may be exercised within a jurisdiction.

Types of jurisdictions are:

- Identifying Jurisdiction
- Income Tax Jurisdiction
- Transaction Tax Jurisdiction

### **Identifying Jurisdiction**

For each legal entity, select an identifying jurisdiction. An identifying jurisdiction is your first jurisdiction you must register with to be allowed to do business in a country. If there is more than one jurisdiction that a legal entity needs to register with to commence business, select one as the identifying jurisdiction. Typically the identifying jurisdiction is the one you use to uniquely identify your legal entity.

Income tax jurisdictions and transaction tax jurisdictions do not represent the same jurisdiction. Although in some countries, the two jurisdictions are defined at the same geopolitical level, such as a country, and share the same legal authority, they are two distinct jurisdictions.

### **Income Tax Jurisdiction**

Create income tax jurisdictions to properly report and remit income taxes to the legal authority. Income tax jurisdictions by law impose taxes on your financial income generated by all your entities within their jurisdiction. Income tax is a key source of funding that the government uses to fund its activities and serve the public.

### **Transaction Tax Jurisdiction**

Create transaction tax jurisdictions through Oracle Fusion Tax in a separate business flow, because of the specific needs and complexities of various taxes. Tax jurisdictions and their respective rates are provided by suppliers and require periodic maintenance. Use transaction tax jurisdiction for legal reporting of sales and value added taxes.

## **Legal Authorities: Explained**

A legal authority is a government or legal body that is charged with powers to make laws, levy and collect fees and taxes, and remit financial appropriations for a given jurisdiction.

### **Legal Authorities**

For example, the Internal Revenue Service is the authority for enforcing income tax laws in United States. In some countries, such as India and Brazil, you are required to print legal authority information on your tax reports. Legal authorities are defined in the Oracle Fusion Legal Entity Configurator. Tax authorities are a subset of legal authorities and are defined using the same setup flow.

Legal authorities are not mandatory in Oracle Fusion Human Capital Management (HCM), but are recommended and are generally referenced on statutory reports.

## Creating Legal Jurisdictions, Addresses and Authorities: Examples

Define legal jurisdictions and related legal authorities to support multiple legal entity registrations, which are used by Oracle Fusion Tax and Oracle Fusion Payroll.

### Legal Jurisdictions

Create a legal jurisdiction by following these steps:

1. Navigate to the **Manage Legal Jurisdictions** page from the **Setup and Maintenance** work area by querying on the **Manage Legal Jurisdictions** task and selecting **Go to Task**.
2. Select **Create**.
3. Enter a unique **Name**, United States Income Tax.
4. Select a **Territory**, United States.
5. Select a **Legislative Category**, Income tax.
6. Select **Identifying**, Yes. Identifying indicates the first jurisdiction a legal entity must register with to do business in a country.
7. Enter a **Start Date** if desired. You can also add an **End Date** to indicate a date that the jurisdiction may no longer be used.
8. Select a **Legal Entity Registration Code**, EIN or TIN.
9. Select a **Legal Reporting Unit Registration Code**, Legal Reporting Unit Registration Number.
10. Optionally enter one or more **Legal Functions**.
11. Select **Save and Close**.

### Legal Addresses for Legal Entities and Reporting Units

Create a legal address for legal entities and reporting units by following these steps:

1. Navigate to the **Manage Legal Address** page from the **Setup and Maintenance** work area by querying on the **Manage Legal Address** task and selecting **Go to Task**.
2. Select **Create**.
3. Select **Country**.
4. Enter **Address Line 1**, Oracle Parkway.
5. Optionally enter **Address Line 2**, and **Address Line 3**.
6. Enter or Select **Zip Code**, 94065.
7. Select **Geography** 94065 and **Parent Geography** Redwood Shores, San Mateo, CA.

8. Optionally enter a **Time Zone**, US Pacific Time.
9. Select **OK**.
10. Select **Save and Close**.

## Legal Authorities

Create a legal authority by following these steps:

1. Navigate to the **Manage Legal Authorities** page from the **Setup and Maintenance** work area by querying on the **Manage Legal Authorities** task and selecting **Go to Task**.
2. Enter the **Name**, California Franchise Tax Board.
3. Enter the **Tax Authority Type**, Reporting.

---

### Note

Create an address for the legal authority.

- 
4. Select **Create**.
  5. The **Site Number** is automatically assigned.
  6. Optionally enter a **Mail Stop**.
  7. Select **Country**, United States
  8. Enter **Address Line 1**, 121 Spear Street, Suite 400.
  9. Optionally enter **Address Line 2**, and **Address Line 3**.
  10. Enter or Select **Zip Code**, 94105.
  11. Select **Geography** 94105 and **Parent Geography** San Francisco, San Francisco, CA.
  12. Select **OK**.
  13. Optionally enter a **Time Zone**, US Pacific Time.
  14. Optionally click the **One-Time Address** check box.
  15. The **From Date** defaults to today's date. Update if necessary.
  16. Optionally enter a **To Date** to indicate the last day the address can be used.

---

### Note

You can optionally enter **Address Purpose** details.

- 
17. Select **Add Row**.
  18. Select **Purpose**.
  19. The **Purpose from Date** will default to today's date.
  20. Optionally enter a **Purpose to Date**.
  21. Select **OK**.
  22. Select **Save and Close**.

# Creating Legal Entities, Registrations, and Reporting Units: Examples

Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, and income, pay transaction taxes, or perform intercompany trading.

## Legal Entity

From within an implementation project, create a legal entity by following these steps:

---

### Note

Working within an implementation project is required because you select a scope value within an implementation project. The scope value is the legal entity that you will create or select to work within for your implementation project.

- 
1. Navigate to an implementation project that contains the **Define Legal Entities** task list from the **Setup and Maintenance** work area.
  2. Select **Go to Task** for the **Define Legal Entities** task list within the implementation project.

---

### Note

The following message appears:

You must first select a scope value to perform the task.

- Select and add an existing scope value to the implementation project.
- Create a new scope value and then add it to the implementation project.

- 
3. Select **Create New**.
  4. From the **Manage Legal Entities** page select **Create**.
  5. Accept the default **Country**, United States.
  6. Enter **Name**, InFusion USA West.
  7. Enter **Legal Entity Identifier**, US0033.
  8. Optionally enter **Start Date**. When the start date is blank the legal entity is effective from the creation date.
  9. Optionally enter an **End Date**.
  10. Optionally, if your legal entity should be registered to report payroll tax and social insurance, select the **Payroll statutory unit** check box.
  11. Optionally, if your legal entity has employees, select the **Legal employer** check box.
  12. Optionally, if this legal entity is not a payroll statutory unit, select an existing payroll statutory unit to report payroll tax and social instance on behalf of this legal entity.

---

**Note**

Enter the **Registration Information**.

---

13. Accept the default **Identifying Jurisdiction**, United States Income Tax.
  14. Search for and select a **Legal Address**, 500 Oracle Parkway, Redwood Shores, CA 94065.
- 

**Note**

The legal address must have been entered previously using the **Manage Legal Address** task.

---

15. Select **OK**.
16. Optionally enter a **Place of Registration**.
17. Enter the **EIN or TIN**.
18. Enter the **Legal Reporting Unit Registration Number**.
19. Select **Save and Close** to navigate back to the Manage Legal Entities page.
20. Select **Done** to return to your implementation project. An issue with the done button has been fixed in 11g Release 1 (11.1.4).
21. In the **Legal Entity** choice list in the implementation project (just below the implementation project name and code), click **Select and Add Legal Entity** to choose the legal entity that you just created, and set the scope for the remainder of your setup.
22. Search for and select your legal entity from the **Manage Legal Entities** page.
23. Select **Save and Close**.

This sets the scope for your task list to the selected legal entity, as indicated in the **Legal Entity** choice list above the **Tasks and Task Lists** table.

**Legal Entity Registrations**

A legal entity registration with the same name as that of the legal entity will be created by default. To verify this, locate the **Manage Legal Entity Registrations** task and then select **Go to Task**. To create another registration for the legal entity follow these steps:

1. Navigate to your implementation project from the **Setup and Maintenance** work area. Verify that the parent **Legal Entity** scope value is set correctly.
2. Expand the **Define Legal Entities** task list within the implementation project.
3. Select **Manage Legal Entity Registrations Go to Task**.
4. Select **Create**.
5. Enter **Jurisdiction**.

6. Enter **Registered Address**.
7. Enter **Registered Name**.
8. Optionally enter **Alternate Name, Registration Number, Place of Registration, Issuing Legal Authority, and Issuing Legal Authority Address, Start Date, and End Date**.
9. **Save and Close**.

### Legal Reporting Unit

When a legal entity is created, a legal reporting unit with the same name as that of the entity is also automatically created. To create more legal reporting units or modify the settings follow these steps:

1. Navigate to your implementation project from the **Setup and Maintenance** work area. Verify that the parent **Legal Entity** scope value is set correctly.
2. Select **Go to Task** for the **Define Legal Entities** task list within the implementation project.
3. Select **Create**.
4. Enter **Territory, United States**.
5. Enter **Name**.
6. Optionally enter a **Start Date**.

---

#### Note

Enter **Registration Information**.

- 
7. Search for and select **Jurisdiction**.

---

#### Note

Enter **Main Legal Reporting Unit** information.

- 
8. Select the value Yes or No for the **Main Legal Reporting Unit**. Set value to yes only if you are creating a new main (primary) legal reporting unit.
  9. Enter the **Main Effective Start Date, 1/1/11**.
  10. **Save and Close**.

## Define Legal Entities: Manage Legal Entity

### Legal Entities: Explained

A legal entity is a recognized party with rights and responsibilities given by legislation.

Legal entities have the right to own property, the right to trade, the responsibility to repay debt, and the responsibility to account for themselves to regulators, taxation authorities, and owners according to rules specified in the relevant legislation. Their rights and responsibilities may be enforced through the judicial system. Define a legal entity for each registered company or other entity

recognized in law for which you want to record assets, liabilities, expenses and income, pay transaction taxes, or perform intercompany trading.

A legal entity has responsibility for elements of your enterprise for the following reasons:

- Facilitating local compliance
- Taking advantage of lower corporation taxation in some jurisdictions
- Preparing for acquisitions or disposals of parts of the enterprise
- Isolating one area of the business from risks in another area. For example, your enterprise develops property and also leases properties. You could operate the property development business as a separate legal entity to limit risk to your leasing business.

### **The Role of Your Legal Entities**

In configuring your enterprise structure in Oracle Fusion Applications, you need to understand that the contracting party on any transaction is always the legal entity. Individual legal entities own the assets of the enterprise, record sales and pay taxes on those sales, make purchases and incur expenses, and perform other transactions.

Legal entities must comply with the regulations of jurisdictions, in which they register. Europe now allows for companies to register in one member country and do business in all member countries, and the US allows for companies to register in one state and do business in all states. To support local reporting requirements, legal reporting units are created and registered.

You are required to publish specific and periodic disclosures of your legal entities' operations based on different jurisdictions' requirements. Certain annual or more frequent accounting reports are referred to as statutory or external reporting. These reports must be filed with specified national and regulatory authorities. For example, in the United States (US), your publicly owned entities (corporations) are required to file quarterly and annual reports, as well as other periodic reports, with the Securities and Exchange Commission (SEC), who enforces statutory reporting requirements for public corporations.

Individual entities privately held or held by public companies do not have to file separately. In other countries, your individual entities do have to file in their own name, as well as at the public group level. Disclosure requirements are diverse. For example, your local entities may have to file locally to comply with local regulations in a local currency, as well as being included in your enterprise's reporting requirements in different currency.

A legal entity can represent all or part of your enterprise's management framework. For example, if you operate in a large country such as the United Kingdom or Germany, you might incorporate each division in the country as a separate legal entity. In a smaller country, for example Austria, you might use a single legal entity to host all of your business operations across divisions.

## **Legal Entity in Oracle Fusion: Points to Consider**

Oracle Fusion Applications support the modeling of your legal entities. If you make purchases from or sell to other legal entities, define these other legal entities in your customer and supplier registers, which are part of the Oracle Fusion Trading Community Architecture. When your legal entities are trading with each other, you represent both of them as legal entities and also as

customers and suppliers in your customer and supplier registers. Use legal entity relationships to determine which transactions are intercompany and require intercompany accounting. Your legal entities can be identified as legal employers and therefore, are available for use in Human Capital Management (HCM) applications.

There are several decisions that need to be considered in creating your legal entities.

- The importance of legal entity in transactions
- Legal entity and its relationship to business units
- Legal entity and its relationship to divisions
- Legal entity and its relationship to ledgers
- Legal entity and its relationship to balancing segments
- Legal entity and its relationship to consolidation rules
- Legal entity and its relationship to intercompany transactions
- Legal entity and its relationship to worker assignments and legal employer
- Legal entity and payroll reporting
- Legal reporting units

### **The Importance of Legal Entity in Transactions**

All of the assets of the enterprise are owned by individual legal entities. Oracle Fusion Financials allow your users to enter legal entities on transactions that represent a movement in value or obligation.

For example, the creation of a sales order creates an obligation for the legal entity that books the order to deliver the goods on the acknowledged date, and an obligation of the purchaser to receive and pay for those goods. Under contract law in most countries, damages can be sought for both actual losses, putting the injured party in the same state as if they had not entered into the contract, and what is called loss of bargain, or the profit that would have made on a transaction.

In another example, if you revalued your inventory in a warehouse to account for raw material price increases, the revaluation and revaluation reserves must be reflected in your legal entity's accounts. In Oracle Fusion Applications, your inventory within an inventory organization is managed by a single business unit and belongs to one legal entity.

### **Legal Entity and Its Relationship to Business Units**

A business unit can process transactions on behalf of many legal entities. Frequently, a business unit is part of a single legal entity. In most cases the legal entity is explicit on your transactions. For example, a payables invoice has an explicit legal entity field. Your accounts payables department can process supplier invoices on behalf of one or many business units.

In some cases, your legal entity is inferred from your business unit that is processing the transaction. For example, your business unit A agrees on terms for the transfer of inventory to your business unit B. This transaction is binding on your default legal entities assigned to each business unit. Oracle Fusion Procurement, Oracle Fusion Projects, and Oracle Fusion Supply Chain applications rely on deriving the legal entity information from the business unit.

## Legal Entity and Its Relationship to Divisions

The division is an area of management responsibility that can correspond to a collection of legal entities. If desired, you can aggregate the results for your divisions by legal entity or by combining parts of other legal entities. Define date-effective hierarchies for your cost center or legal entity segment in your chart of accounts to facilitate the aggregation and reporting by division. Divisions and legal entities are independent concepts.

## Legal Entity and Its Relationship to Ledgers

One of your major responsibilities is to file financial statements for your legal entities. Map legal entities to specific ledgers using the Oracle Fusion General Ledger Accounting Configuration Manager. Within a ledger, you can optionally map a legal entity to one or more balancing segment values.

## Legal Entity and Its Relationship to Balancing Segments

Oracle Fusion General Ledger supports up to three balancing segments. Best practices recommend that one of these segments represents your legal entity to ease your requirement to account for your operations to regulatory agencies, tax authorities, and investors. Accounting for your operations means you must produce a balanced trial balance sheet by legal entity. If you account for many legal entities in a single ledger, you must:

1. Identify the legal entities within the ledger.
2. Balance transactions that cross legal entity boundaries through intercompany transactions.
3. Decide which balancing segments correspond to each legal entity and assign them in Oracle Fusion General Ledger Accounting Configuration Manager. Once you assign one balancing segment value in a ledger, then all your balancing segment values must be assigned. This recommended best practice facilitates reporting on assets, liabilities, and income by legal entity.

Represent your legal entities by at least one balancing segment value. You may represent it by two or three balancing segment values if more granular reporting is required. For example, if your legal entity operates in multiple jurisdictions in Europe, you might define balancing segment values and map them to legal reporting units. You can represent a legal entity by more than one balancing segment value, do not use a single balancing segment value to represent more than one legal entity.

In Oracle Fusion General Ledger, there are three balancing segments. You can use separate balancing segments to represent your divisions or strategic business units to enable management reporting at the balance sheet level for each division or business unit. For example, use this solution to empower your business unit and divisional managers to track and assume responsibility for their asset utilization or return on investment. Using multiple balancing segments is also useful when you know at the time of implementation that you are disposing of a part of a legal entity and need to isolate the assets and liabilities for that entity.

---

### Note

Implementing multiple balancing segments requires every journal entry that is not balanced by division or business unit, to generate balancing lines. Also, you

cannot change to multiple balancing segments easily after you have begun to use the ledger because your historical data is not balanced by the new multiple balancing segments. Restating historical data must be done at that point.

To use this feature for disposal of a part of a legal entity, implement multiple balancing segments at the beginning of the legal entity's corporate life or on conversion to Oracle Fusion.

---

If you decided to account for each legal entity in a separate ledger, there is no requirement to identify the legal entity with a balancing segment value within the ledger.

---

#### **Note**

While transactions that cross balancing segments don't necessarily cross legal entity boundaries, all transactions that cross legal entity boundaries must cross balancing segments. If you make an acquisition or are preparing to dispose of a portion of your enterprise, you may want to account for that part of the enterprise in its own balancing segment even if it is not a separate legal entity. If you do not map legal entities sharing the same ledger to balancing segments, you will not be able to distinguish them using the intercompany functionality or track their individual equity.

---

### **Legal Entity and Its Relationship to Consolidation Rules**

In Oracle Fusion Applications you can map legal entities to balancing segments and then define consolidation rules using your balancing segments. You are creating a relationship between the definition of your legal entities and their role in your consolidation.

### **Legal Entity and its Relationship to Intercompany Transactions**

Use Oracle Fusion Intercompany functionality for automatic creation of intercompany entries across your balancing segments. Intercompany processing updates legal ownership within the enterprise's groups of legal entities. Invoices or journals are created as needed. To limit the number of trading pairs for your enterprise, set up intercompany organizations and assign them to your authorized legal entities. Define processing options and intercompany accounts to use when creating intercompany transactions and to assist in consolidation elimination entries. These accounts are derived and automatically entered on your intercompany transactions based on legal entities assigned to your intercompany organizations.

Intracompany trading, in which legal ownership isn't changed but other organizational responsibilities are, is also supported. For example, you can track assets and liabilities that move between your departments within your legal entities by creating departmental level intercompany organizations.

---

#### **Note**

In the Oracle Fusion Supply Chain applications, model intercompany relationships using business units, from which legal entities are inferred.

---

### **Legal Entity and Its Relationship to Worker Assignments and Legal Employer**

Legal entities that employ people are called legal employers in the Oracle Fusion Legal Entity Configurator. You must enter legal employers on worker assignments in Oracle Fusion HCM.

## Legal Entity and Payroll Reporting

Your legal entities are required to pay payroll tax and social insurance such as social security on your payroll. In Oracle Fusion Applications, you can register payroll statutory units to pay and report on payroll tax and social insurance on behalf of many of your legal entities. As the legal employer, you might be required to pay payroll tax, not only at the national level, but also at the local level. You meet this obligation by establishing your legal entity as a place of work within the jurisdiction of a local authority. Set up legal reporting units to represent the part of your enterprise with a specific legal reporting obligation. You can also mark these legal reporting units as tax reporting units, if the legal entity must pay taxes as a result of establishing a place of business within the jurisdiction.

## Define Legal Entities: Manage Legal Entity HCM Information

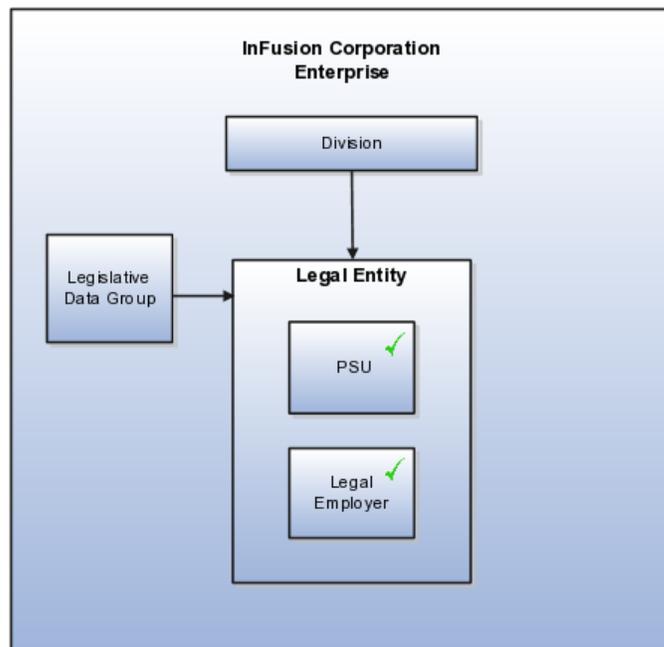
### HCM Organization Models: Examples

These examples illustrate different models for human capital management (HCM) organizations. Each example includes a legislative data group (LDG). LDGs are not an organization classification, but they are included in the example to show how you associate them with a payroll statutory unit to partition payroll data.

#### Simple Configuration

This example illustrates a simple configuration that does not include any tax reporting units. The legal employer and payroll statutory units are the same, sharing the same boundaries. Reporting can only be done at a single level. Countries such as Saudi Arabia and the United Arab Emirates (UAE) might use this type of model, as reporting in these countries is done at the legal entity level.

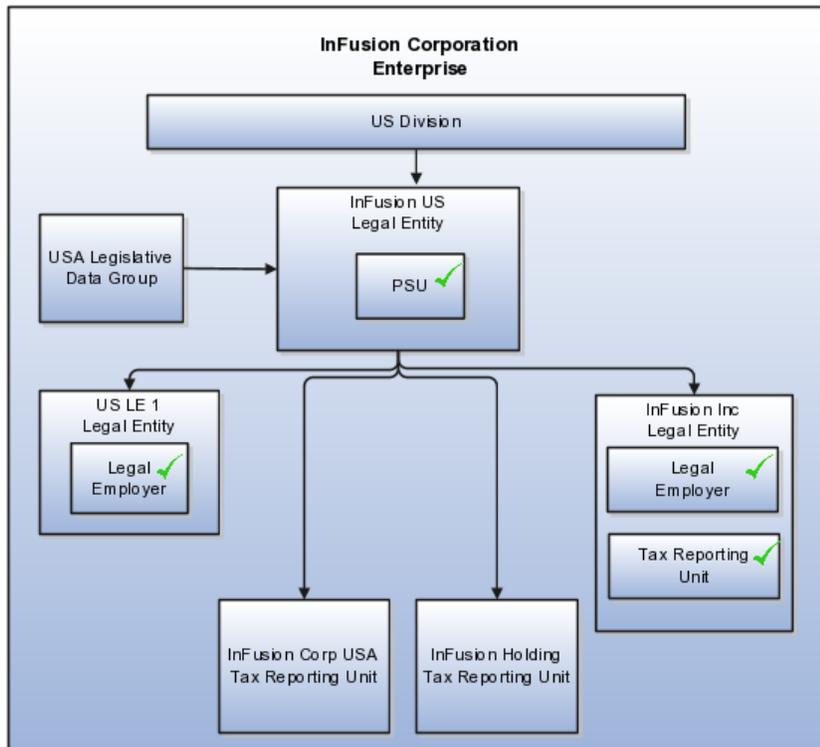
This figure illustrates a simple configuration where the enterprise has only one legal entity that is both a payroll statutory unit and a legal employer.



## Multiple Legal Employers and Tax Reporting Units Under One Payroll Statutory Unit

This example illustrates a more complex configuration. In this enterprise, one legal entity, InFusion US, is defined as a payroll statutory unit and has two separate legal entities, which are also legal employers. This model shows multiple legal employers that are associated with a single payroll statutory unit, and how tax reporting units are always associated with a specific legal employer (or employers) through the payroll statutory unit. The implication is that payroll statutory reporting boundaries vary from human resources (HR) management, and the balances can be categorized separately by either payroll statutory unit, legal employer, or tax reporting unit. This configuration is based on tax filing requirements, as some tax-related payments and reports are associated with a higher level than employers. An example of a country that might use this model is the US.

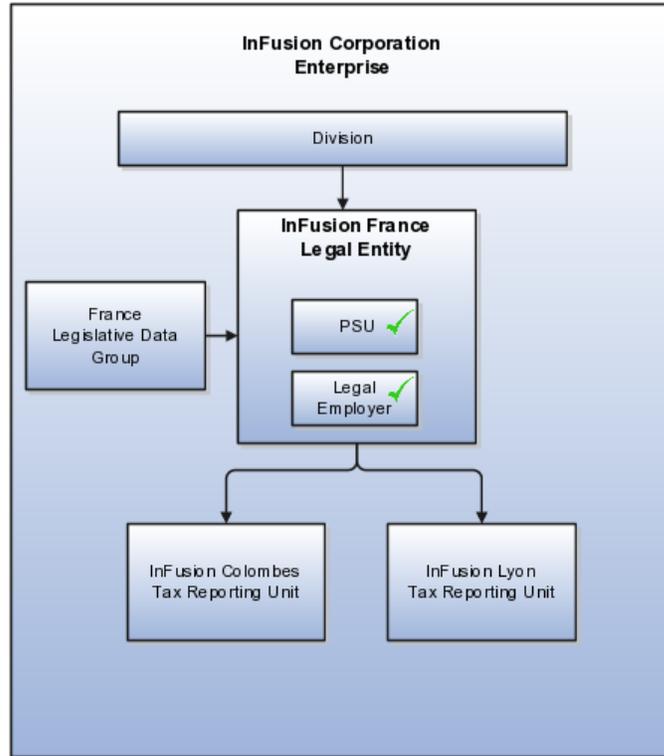
This figure illustrates an enterprise that has one payroll statutory unit and multiple legal employers and tax reporting units.



## One Payroll Statutory Unit and Two Tax Reporting Units That Are Subsidiaries of the Legal Entity

This model makes no distinction between a legal employer and a payroll statutory unit. Tax reporting units are defined as subsidiaries to the legal entity. In this enterprise, legal entity is the highest level of aggregation for payroll calculations and reporting, and statutory reporting boundaries are assumed to be the same for both payroll and HR management. An example of a country that might use this model is France.

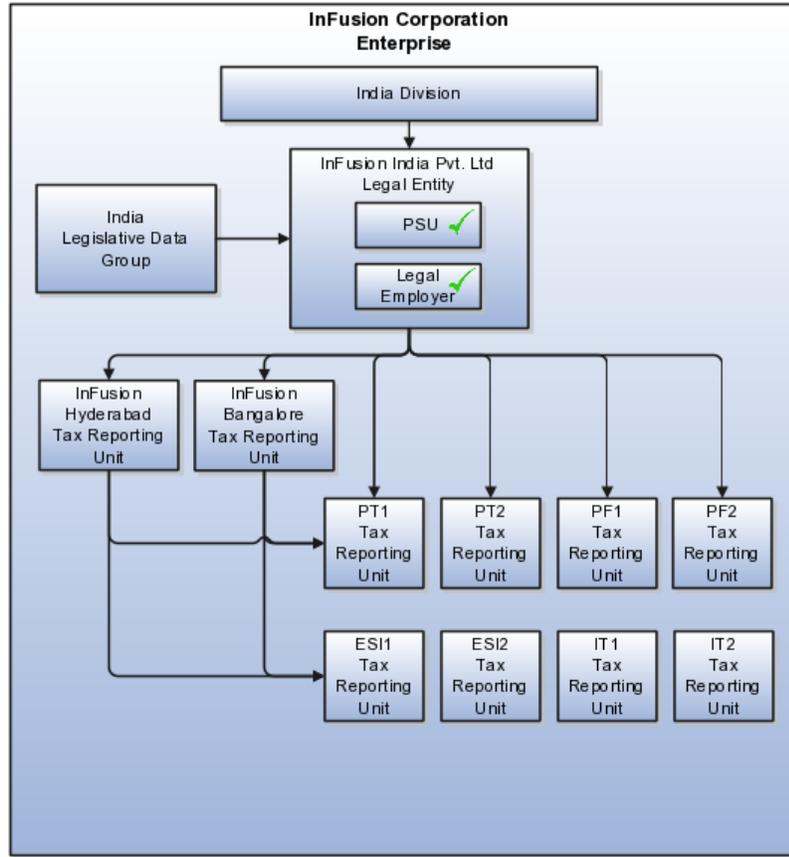
This figure illustrates an example of an organization with one legal entity that is both a legal employer and a payroll statutory unit and that has two tax reporting units.



### One Payroll Statutory Unit with Several Tax Reporting Units That Are Independent from the Legal Employer

In this model, the enterprise has one legal entity, and legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently. Using this model, you would not typically need to report on tax reporting unit balances within a legal employer, and balances can be categorized by either or both organizations, as required. An example of a country that might use this model is India.

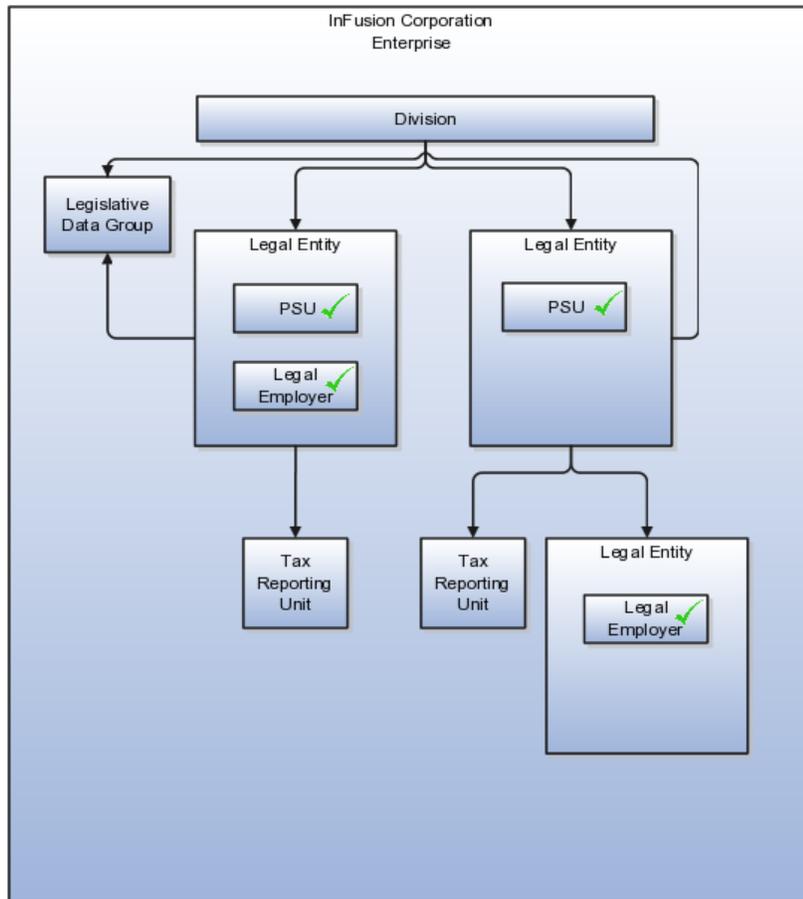
This figure illustrates an enterprise with one legal entity that is a payroll statutory unit and a legal employer, and the tax reporting units are independent from the legal employer.



### Multiple Payroll Statutory Units with Several Tax Reporting Units that are Independent from the Legal Employer

In this model, the enterprise has two legal entities, and legal employers and tax reporting units are independent from each other within a payroll statutory unit, because there is no relationship from a legal perspective. Therefore, you can run reporting on both entities independently. Using this model, you would not typically need to report on tax reporting unit balances within a legal employer, and balances can be categorized by either or both organizations, as required. An example of a country that might use this model is the United Kingdom (UK).

This figure illustrates an enterprise with two legal entities, and legal employers and tax reporting units are independent from each other.



## Payroll Statutory Units, Legal Employers, and Tax Reporting Units: How They Work Together

When you set up legal entities, you can identify them as legal employers and payroll statutory units, which makes them available for use in Oracle Fusion Human Capital Management (HCM). A tax reporting unit is created automatically when you add a legal entity and identify it as a payroll statutory unit. Depending on how your organization is structured, you may have only one legal entity that is also a payroll statutory unit and a legal employer, or you may have multiple legal entities, payroll statutory units, and legal employers.

### Legal Employers and Payroll Statutory Unit

Payroll statutory units enable you to group legal employers so that you can perform statutory calculations at a higher level, such as for court orders or for United Kingdom (UK) statutory sick pay. In some cases, a legal employer is also a payroll statutory unit. However, your organization may have several legal employers under one payroll statutory unit. A legal employer can belong to only one payroll statutory unit.

### Payroll Statutory Units and Tax Reporting Units

Payroll statutory units and tax reporting units have a parent-child relationship, with the payroll statutory unit being the parent.

## Tax Reporting Units and Legal Employers

Tax reporting units are indirectly associated with a legal employer through the payroll statutory unit. One or more tax reporting units can be used by a single legal employer, and a tax reporting unit can be used by one or more legal employers. For example, assume that a single tax reporting unit is linked to a payroll statutory unit. Assume also that two legal employers are associated with this payroll statutory unit. In this example, both legal employers are associated with the single tax reporting unit.

## FAQs for Manage Legal Entity HCM Information

### What's a legal employer?

A legal employer is a legal entity that employs workers. You define a legal entity as a legal employer in the Oracle Fusion Legal Entity Configurator.

The legal employer is captured at the work relationship level, and all employment terms and assignments within that relationship are automatically with that legal employer. Legal employer information for worker assignments is also used for reporting purposes.

### What's a payroll statutory unit?

Payroll statutory units are legal entities that are responsible for paying workers, including the payment of payroll tax and social insurance. A payroll statutory unit can pay and report on payroll tax and social insurance on behalf of one or many legal entities, depending on the structure of your enterprise. For example, if you are a multinational, multicompany enterprise, then you register a payroll statutory unit in each country where you employ and pay people. You can optionally register a consolidated payroll statutory unit to pay and report on workers across multiple legal employers within the same country. You associate a legislative data group with a payroll statutory unit to provide the correct payroll information for workers.

## Define Legal Entities: Manage Legal Entity Tax Profile

### Party Tax Profiles: Explained

A tax profile is the body of information that relates to a party's transaction tax activities. A tax profile can include main and default information, tax registration, tax exemptions, party fiscal classifications, tax reporting codes, configuration options, and service subscriptions.

Set up tax profiles for the following parties involved in your transactions:

- First parties: All legal entities, legal reporting units, and business units in your organization that have a transaction tax requirement.
- Third parties: Your customers and suppliers and their locations and banks.
- Tax authorities: Parties that administer tax rules and regulations.

## First Parties

Set up tax profiles for your first party legal entities, legal reporting units, and business units.

First party legal entities identify your organization to the relevant legal authorities, for example, a national or international headquarters. Legal entities let you more accurately model your external relationships to legal authorities. The relationships between first party legal entities and the relevant tax authorities normally control the setup of the transaction taxes required by your business. Under most circumstances the tax setup is used and maintained based on the configuration of the legal entity. Enter the default information, party fiscal classifications, tax reporting codes, and configuration options for your legal entities. You can also specify if you are using the tax services of an external service provider for tax calculation.

First party legal reporting units identify each office, service center, warehouse and any other location within the organization that has a tax requirement. A legal reporting unit tax profile is automatically created for the headquarter legal entity. Set up additional legal reporting unit tax profiles for those needed for tax purposes. For legal reporting units, enter the default information, tax registrations, party fiscal classifications, and tax reporting codes. Also, define tax reporting details for your VAT and global tax reporting needs for tax registrations of tax regimes that allow this setup.

Business units organize your company data according to your internal accounting, financial monitoring, and reporting requirements. To help you manage the tax needs of your business units, you can use the business unit tax profile in either of two ways:

- Indicate that business unit tax setup is used and maintained based on the configuration of the associated legal entity at transaction time. The tax setup of the associated legal entity setup is either specific to the legal entity or shared across legal entities using the Global Configuration Owner setup.
- Indicate that tax setup is used and maintained by a specific business unit. Create configuration options for the business unit to indicate that the subscribed tax content is used for the transactions created for the business unit.

For business units that maintain their own setup, enter the default information, tax reporting codes, configuration options, and service providers as required.

## Third Parties

Set up third party tax profiles for parties with the usage of customer, supplier, and their sites. Enter the default information, tax registrations, party fiscal classifications, and reporting codes required for your third parties or third party sites. You can set up tax exemptions for your customers and customer sites.

Banks are also considered third parties. When a bank is created, the tax registration number specified on the bank record is added to the party tax profile record in Oracle Fusion Tax. You can not modify the party tax profile for a bank as it is view only. You can only modify the bank record itself.

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### Note

Setting up party tax profiles for third parties is not required. Taxes are still calculated on transactions for third parties that do not have tax profiles

### Tax Authorities

Set up a tax authority party tax profile using the Legal Authorities set up task. The tax authority party tax profile identifies a tax authority party as a collecting authority or a reporting authority or both. A collecting tax authority manages the administration of tax remittances. A reporting tax authority receives and processes all company transaction tax reports.

The collecting and reporting tax authorities appear in the corresponding list of values on all applicable Oracle Fusion Tax pages. All tax authorities are available in the list of values as an issuing tax authority.

## Specifying First Party Tax Profile Options: Points to Consider

Set up first party tax profiles for all legal entities, legal reporting units, and business units in your organization that have a transaction tax requirements. How you set up your first parties can impact the tax calculation on your transactions.

The first party tax profile consists of:

- **Defaults and controls:** Applicable to legal entities and legal reporting units. Business units that use their own tax setup do not have defaults and controls.
- **Tax registrations:** Applicable to legal reporting units.
- **Party fiscal classifications:** Applicable to legal entities and legal reporting units.
- **Tax reporting codes:** Applicable to legal entities, legal reporting units, and business units who do not use the tax setup of the legal entity.
- **Configuration options:** Applicable to legal entities and business units who do not use the tax setup of the legal entity.
- **Service subscriptions:** Applicable to legal entities and business units who do not use the tax setup of the legal entity.

### Defaults and Controls

The following table describes the defaults and controls available at the first party tax profile level:

Option	Description
Set as self-assessment (reverse charge)	Automatically self-assess taxes on purchases.
Rounding Level	Perform rounding operations on the: <ul style="list-style-type: none"> <li>• <b>Header:</b> Applies rounding to calculated tax amounts once for each tax rate per invoice.</li> <li>• <b>Line:</b> Applies rounding to the calculated tax amount on each invoice line.</li> </ul>

<b>Rounding Rule</b>	<p>The rule that defines how the rounding should be performed on a value involved in a taxable transaction. For example, up to the next highest value, down to the next lowest value, or nearest.</p> <hr/> <p><b>Note</b></p> <p>If you defined a rounding precedence hierarchy in the configuration owner tax option settings for the combination of configuration owner and event class, Oracle Fusion Tax considers the rounding details in the applicable tax profile.</p>
<b>Set Invoice Values as Tax Inclusive</b>	<p>This first party intends to send or receive invoices with invoice line amount inclusive of the tax amount.</p> <hr/> <p><b>Note</b></p> <p>This option overrides the tax inclusive handling setting at the tax level, but not at the tax rate level.</p>

## Tax Registrations

You must set up a separate tax registration to represent each distinct registration requirement for a first party legal reporting unit. Oracle Fusion Tax uses tax registrations in tax determination and tax reporting. If your first party has more than one tax registration under the same tax regime, then the application considers the tax registration in the order: tax jurisdiction; tax; tax regime.

You must enable the **Use tax reporting configuration** option on the first party tax regime to allow entry of global tax reporting configuration details during tax registration setup for legal reporting units for these tax regimes.

## Party Fiscal Classifications

If applicable, associate first party fiscal classification codes with this party. The party fiscal classification codes you enter become part of tax determination for invoices associated with this party. Specify start and end dates to control when these fiscal classifications are applicable for this party and transaction.

For legal entities, you can view the associated legal classifications that were assigned to the tax regime defined for this first party. The legal classifications are used in the tax determination process, similarly to the party fiscal classifications.

## Tax Reporting Codes

Set up tax reporting types to capture additional tax information on transactions for your tax reports for your first parties. Depending on the tax reporting type code, you either enter or select a tax reporting code for this party. Specify start and end dates to control when these tax reporting codes are applicable.

## Configuration Options

The legal entities and business units in your organization are each subject to specific sets of tax regulations as designated by the tax authorities where you do

business. Use configuration options to associate legal entities and business units with their applicable tax regimes. You can set up tax configuration options when you create a tax regime or when you create a party tax profile. Both setup flows display and maintain the same party and tax regime definitions.

## **Service Subscriptions**

Oracle Fusion Tax lets you use the tax services of external service providers for tax calculation of US Sales and Use Tax on Receivables transactions. The setup for provider services is called a service subscription. A service subscription applies to the transactions of one configuration option setup for a combination of tax regime and legal entity or business unit. Set up service subscriptions when you create a tax regime or when you create a party tax profile for a first party legal entity or business unit.

## **FAQs for Manage Legal Entity Tax Profile**

### **When does a party tax profile get created for a legal entity?**

The legal entity party tax profile is automatically created when a legal entity record is created. If a legal entity party tax profile record is not created, for example, when a legal entity is created through a back-end process, a legal entity party tax profile is created upon saving the tax regime when a legal entity is subscribed to or upon saving the configuration owner tax options when they are defined for the legal entity. Otherwise, create a party tax profile using the Create Legal Entity Tax Profile page. You can edit the tax profile that was automatically generated with the relevant tax information, but it is not required.

## **Define Legal Entities: Define Legal Reporting Units**

### **Planning Legal Reporting Units: Points to Consider**

Each of your legal entities has at least one legal reporting unit. Legal reporting units can also be referred to as establishments. You can define either domestic or foreign establishments. Define legal reporting units by physical location, such as a sales office, or by logical unit, such as groups of employees subject to different reporting requirements. For example, define logical legal reporting units for both salaried and hourly paid employees.

Another example of logical reporting units is in the Human Capital Management (HCM) system where you use your legal reporting units to model your tax reporting units. A tax reporting unit is used to group workers for the purpose of tax reporting.

#### **Planning Legal Reporting Units**

Plan and define your legal reporting units at both the local and national levels if you operate within the administrative boundaries of a jurisdiction that is more granular than country. For example, your legal entity establishes operation in a country that requires reporting of employment and sales taxes locally as well as

nationally. Therefore, you need more than one legally registered location to meet this legal entity's reporting requirements in each local area. Additionally, legal entities in Europe operate across national boundaries, and require you to set up legal reporting units for the purposes of local registration in each country. There can be multiple registrations associated with a legal reporting unit. However, there can be only one identifying registration, defined by the legal authority used for the legal entity or legal reporting unit, associated with the legal reporting unit.

## **Define Chart of Accounts for Enterprise Structures: Manage Chart of Accounts**

### **Chart of Accounts: Explained**

The chart of accounts is the underlying structure for organizing financial information and reporting. An entity records transactions with a set of codes representing balances by type, expenses by function, and other divisional or organizational codes that are important to its business.

A well-designed chart of accounts provides the following benefits:

- Effectively manages an organization's financial business
- Supports the audit and control of financial transactions
- Provides flexibility for management reporting and analysis
- Anticipates growth and maintenance needs as organizational changes occur
- Facilitates an efficient data processing flow
- Allows for delegation of responsibility for cost control, profit attainment, and asset utilization
- Measures performance against corporate objectives by your managers

The chart of accounts facilitates aggregating data from different operations, from within an operation, and from different business flows, thus enabling the organization to report using consistent definitions to their stakeholders in compliance with legislative and corporate reporting standards and aiding in management decisions.

Best practices include starting the design from external and management reporting requirements and making decisions about data storage in the general ledger, including thick versus thin general ledger concepts.

### **Thick Versus Thin General Ledger: Critical Choices**

Thick versus thin general ledger is standard terminology used to describe the amount of data populated and analysis performed in your general ledger. Thick

and thin are the poles; most implementations are somewhere in between. Here are some variations to consider:

- A general ledger used in conjunction with an enterprise profitability management (EPM) product, which has data standardized from each operation, is designed as a thin general ledger. Use this variation if your solution is project based, and Oracle Fusion Projects is implemented. More detailed reporting can be obtained from the Projects system. In the thin general ledger, business units, divisions, and individual departments are not represented in the chart of accounts.
- A general ledger, with segments representing all aspects and capturing every detail of your business, with frequent posting, many values in each segment, and many segments, is called a thick general ledger. A thick general ledger is designed to serve as a repository of management data for a certain level of management. For example, a subsidiary's general ledger is designed to provide the upper management enough data to supervise operations, such as daily sales, without invoice details or inventory without part number details.
- A primary ledger and a secondary ledger, where one is a thick general ledger and the other a thin general ledger, provides dual representation for reporting requirements that require more than one ledger.

### **Thin General Ledger**

With a thin general ledger, you use the general ledger for internal control, statutory reporting, and tracking of asset ownership. You minimize the data stored in your general ledger. A thin general ledger has many of the following characteristics:

- Minimal chart of accounts
  - Short list of cost centers
  - Short list of natural accounts
    - Short list of cost accounts
    - Summary level asset and liability accounts
  - Low number of optional segments
- Infrequent posting schedule

A thin general ledger has natural accounts at a statutory reporting level, for example, payroll expense, rent, property taxes, and utilities. It has cost centers at the functional expense level, such as Research and Development (R&D) or Selling, General, and Administrative (SG&A) expense lines, rather than at department or analytic levels. It omits business unit, division, and product detail.

One example of an industry that frequently uses a thin general ledger is retail. In a retail organization, the general ledger tracks overall sales numbers by region. A retail point of sales product tracks sales and inventory by store, product, supplier, markup, and other retail sales measures.

## Thick General Ledger

With a thick general ledger, you use the general ledger as a detailed, analytic tool, performing analytic functions directly in the general ledger. Data is broken down by many reporting labels, and populated frequently from the subledgers.

You maximize the data stored in the general ledger. A thick general ledger has many of the following characteristics:

- Maximum use of the chart of accounts
  - Long list of natural accounts
  - Long list of cost centers
    - Long list of costing accounts
    - Detailed asset and liability accounts
- Frequent posting schedule

In a thick general ledger, you obtain detail for cost of goods sold and inventory balances and track property plant and equipment at a granular level. Cost centers represent functional expenses, but also roll up to departmental or other expense analysis levels. Using product and location codes in optional segments can provide reporting by line of business. Posting daily, at the individual transaction level, can maximize the data stored in the general ledger.

One example of an industry that frequently uses a thick general ledger is electronic manufacturers. Detail on the revenue line is tagged by sales channel. Product is structured differently to provide detail on the cost of goods sold line, including your bill of materials costs. The general ledger is used to compare and contrast both revenue and cost of goods sold for margin analysis.

## Other Considerations

Consider implementing a thick ledger if there are business requirements to do any of the following:

- Track entered currency balances at the level of an operational dimension or segment of your chart of accounts, such as by department or cost center
- Generate financial allocations at the level of an operational dimension or segment
- Report using multiple layered and versioned hierarchies of the operational dimension or segment from your general ledger

Consider implementing a thin ledger in addition to a thick ledger, if there are additional requirements for:

- Minimal disclosure to the authorities in addition to the requirements listed above. For example, in some European countries, fiscal authorities examine ledgers at the detailed account level.
- Fiscal only adjustments, allocations, and revaluations, which don't impact the thick general ledger.

The important consideration in determining if a thick ledger is the primary or secondary ledger is your reporting needs. Other considerations include how the values for an operational dimension or segment are derived and the amount of resources used in reconciling your different ledgers. If values for the operational dimension are always entered by the user like other segments of the accounting flexfield, then a thick primary ledger is the better choice.

However, if values for the operational dimension or segment are automatically derived from other attributes on the transactions in your subledger accounting rules, rather than entered in the user interface, then use a thick secondary ledger. This decision affects the amount of:

- Storage and maintenance needed for both the general ledger and subledger accounting entries
- System resources required to perform additional posting
- In summary, you have:
  - Minimum demand on storage, maintenance, and system resources with the use of a thin ledger
  - Greater demand on storage, maintenance, and system resources with the use of a thick ledger
  - Greatest demand on storage, maintenance and system resources with the use of both thick and thin ledgers

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#### Note

Generally speaking, there is a tradeoff between the volume of journals and balances created and maintained versus system resource demands. Actual performance depends on a wide range of factors including hardware and network considerations, transaction volume, and data retention policies.

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#### Summary

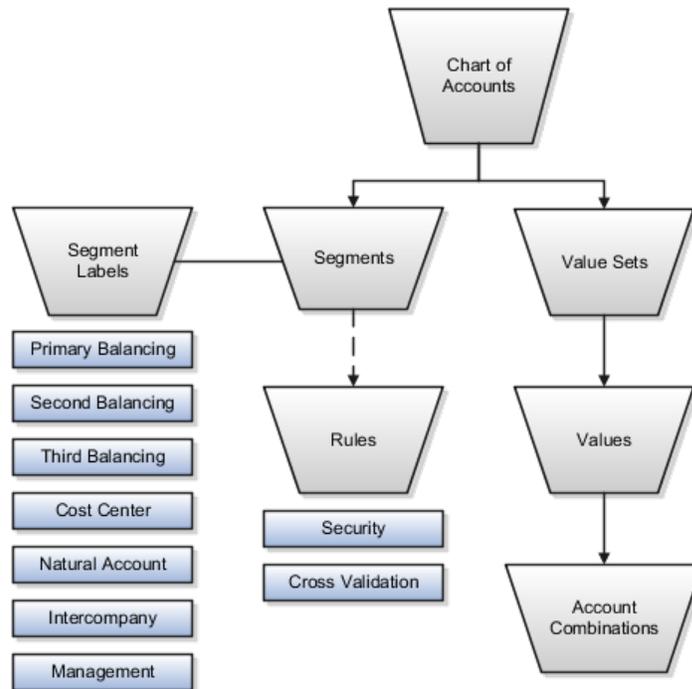
The factors you need to consider in your decision to use a thick or thin general ledger for your organization, are your:

- Downstream EPM system and its capabilities
- Business intelligence system and its capabilities
- Subledger systems and their capabilities and characteristics, including heterogeneity
- General ledger reporting systems and their capabilities
- Maintenance required for the thick or thin distributions and record keeping
- Maintenance required to update value sets for the chart of accounts segments
- Preferences of the product that serves as a source of truth
- Level at which to report profitability including gross margin analysis

- Industry and business complexity

## Chart of Accounts: How Its Components Fit Together

There are several important elements to the basic chart of accounts in Oracle Fusion Applications: a structure that defines the account values, segments, and their labels, and rules (security and validation). Account combinations link the values in the segments together and provide the accounting mechanism to capture financial transactions.



## Chart of Accounts

The chart of accounts defines the number and attributes of various segments, including the order of segments, the width of segments, prompts, and segment labels, such as balancing, natural account, and cost center.

The chart of accounts further defines the combination of value sets associated with each segment of the chart of accounts, as well as the type, default value, additional conditions designating the source of the values using database tables, and the required and displayed properties for the segments.

### Segments

A chart of accounts segment is a component of the account combination. Each segment has a value set attached to it to provide formatting and validation of the set of values used with that segment. The combination of segments creates the account combination used for recording and reporting financial transactions. Examples of segments that may be found in a chart of accounts are company, cost center, department, division, region, account, product, program, and location.

## Value Sets and Values

The value sets define the attributes and values associated with a segment of the chart of accounts. You can think of a value set as a container for your values. You can set up your flexfield so that it automatically validates the segment values that you enter against a table of valid values. If you enter an invalid segment value, a list of valid values appears automatically so that you can select a valid value. You can assign a single value set to more than one segment, and you can share value sets across different flexfields.

## Segment Labels

Segment labels identify certain segments in your chart of accounts and assign special functionality to those segments. Segment labels were referred to as flexfield qualifiers in Oracle E-Business Suite. Here are the segment labels that are available to use with the chart of accounts.

- **Balancing:** Ensures that all journals balance for each balancing segment value or combination of multiple balancing segment values to use in trial balance reporting. There are three balancing segment labels: primary, second, and third balancing. The primary balancing segment label is required.
- **Cost Center:** Facilitates grouping of natural accounts by functional cost types, accommodating tracking of specific business expenses across natural accounts. As cost centers combine expenses and headcount data into costs, they are useful for detailed analysis and reporting. Cost centers are optional, but required if you are accounting for depreciation, additions, and other transactions in Oracle Fusion Assets, and for storing expense approval limits in Oracle Fusion Expense Management.
- **Natural Account:** Determines the account type (asset, liability, expense, revenue, or equity) and other information specific to the segment value. The natural account segment label is required.
- **Management:** Optionally, denotes the segment that has management responsibility, such as the department, cost center, or line of business. Also can be attached to the same segment as one of the balancing segments to make legal entity reporting more granular.
- **Intercompany:** Optionally, assigns the segment to be used in intercompany balancing functionality.

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### Note

All segments have a segment qualifier that enables posting for each value. The predefined setting is Yes to post.

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## Account Combinations

An account combination is a completed code of segment values that uniquely identifies an account in the chart of accounts, for example 01-2900-500-123, might represent InFusion America (company)-Monitor Sales (division)-Revenue (account)-Air Filters (product).

## Rules

The chart of accounts uses two different types of rules to control functionality.

- Security rules: Prohibit certain users from accessing specific segment values. For example, you can create a security rule that grants a user access only to his or her department.
- Cross-validation rules: Control the account combinations that can be created during data entry. For example, you may decide that sales cost centers 600 to 699 should enter amounts only to product sales accounts 4000 to 4999.

## Creating One Chart of Accounts Structure with Many Instances: Example

In Oracle Fusion General Ledger, the chart of accounts model is framed around the concept of a chart of accounts structure, under which one or more chart of accounts structure instances can be created.

### Scenario

Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion has purchased an Oracle Fusion enterprise resource planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers. You are chairing a committee to discuss creation of a model for your global financial reporting structure including your charts of accounts for both your US and UK operations.

### InFusion Corporation

InFusion Corporation has 400 plus employees and revenue of \$120 million. Your product line includes all the components to build and maintain air quality monitoring (AQM) systems for homes and businesses.

### Analysis

In Oracle Fusion General Ledger, the chart of accounts model is framed around the concept of a chart of accounts structure, under which one or more chart of accounts structure instances can be created.

The chart of accounts structure provides the general outline of the chart of accounts and determines the number of segments, the type, the length, and the label (qualifier) of each segment. This forms the foundation of the chart of accounts definition object.

For each chart of accounts structure, it is possible to associate one or more chart of accounts structure instances. Chart of accounts structure instances under the same structure share a common configuration with the same segments, in the same order, and the same characteristics. Using one chart of accounts structure with multiple instances simplifies your accounting and reporting.

At the chart of accounts structure instance level, each segment is associated with a value set that conforms to the characteristic of that segment. For example,

you assign a value set with the same segment type and length to each segment. You are using hierarchies with your chart of accounts segments. Each structure instance segment is assigned a tree code to indicate the source of the hierarchy information for the associated value set. The same value set can be used multiple times within the same or across different chart of accounts instances within the same structure or in different structures. This functionality reduces your segment value creation and maintenance across your charts of accounts.

The collective assignment of value sets to each of the segments forms one chart of accounts instance. At the chart of accounts structure instance level, you can select to enable dynamic insertion. Dynamic insertion allows the creation of account code combinations automatically the first time your users enter that new account combination. The alternative is to create them manually. By deciding to enable dynamic insertion, you save data entry time and prevent delays caused by the manual creation of new code combinations. Well defined cross validation rules help prevent the creation of inappropriate account code combinations.

Perform deployment after a new chart of accounts structure and structure instances are defined or any of their modifiable attributes are updated. Deployment validates and regenerates the necessary objects to enable your charts of accounts and chart of accounts structure instances. By unifying and standardizing your organization's chart of accounts, you are positioned to take full advantage of future functionality in Oracle Fusion General Ledger.

In summary, you are recommending to your company to unify the organization's chart of accounts in a single chart of accounts structure based on chart of accounts commonalities across ledgers. You have also decided to use the chart of accounts structure instance construct to serve different accounting and reporting requirements by using value sets specific to each of your entities.

## Balancing Segments: Explained

Balancing segments ensure that all journals balance for each balancing segment value or combination of multiple balancing segment values. You can secure access to your primary balancing segment values only with data access sets. The general ledger application automatically calculates and creates balancing lines as required in journal entries. For example, recognizing an entity's receivable and the other entity's payable. There are three balancing segment labels: primary, second, and third balancing. The primary balancing segment label is required.

By enabling multiple balancing segments for your chart of accounts, it is possible to produce financial statements for each unique combination of segment values across not only one, but two or even three qualified balancing segments. This ability provides you greater insights into your operations as it affords you visibility along the critical fiscal dimensions you use to plan, monitor, and measure your financial performance.

The following explains processes that use balancing segments.

- Intercompany balancing: Adds lines to unbalanced journals using intercompany rules.
- Opening first period of the new accounting year: Calculates retained earnings amounts at the level of granularity that totals revenue and

expense account balances for multiple balancing segment value combinations. This applies to standard and average balances.

- Importing journals: Adds lines using the suspense account on unbalanced journals.
- Posting journals: Adds additional lines to unbalanced journals for the following enabled account types:
  - Suspense
  - Rounding
  - Net income
  - Retained earnings
  - Cumulative translation adjustments from replication of revaluation journals to reporting currencies and for multiple reporting currency account type specific conversion
- Posting prior period journals: Calculates any income statement impact and posts to the appropriate retained earnings account.
- Translating balances: Supports multiple balancing segments for the following accounts:
  - Retained earnings: Calculated translated retained earnings are post to the retained earnings accounts by balancing segment. Retained earnings represents the summing of the translated revenue and expense accounts across multiple balancing segment values.
  - Cumulative translation adjustment: Amounts posted by balancing segment to these accounts represents currency fluctuation differences between ranges of accounts which use different rate types. For example, period end rates are used for asset and liability accounts and historical rates for equity accounts.
- Revaluing Balances: Supports multiple balancing segments when calculating gain or loss accounts.
- Creating Opening Balances: Initializes reporting currency balances by converting from the total primary currency. Any difference in the reporting currency amounts is offset by populating retained earnings accounts.
- Closing year end: Supports multiple balancing segments when calculating the income statement offset and closing account in the closing journals.

## Multiple Balancing Segments: Points to Consider

Oracle Fusion General Ledger supports tracking financial results at a finer level of granularity than a single balancing segment. In addition to the required primary balancing segment for the chart of accounts, which is typically associated with the company dimension of a business organization, two additional segments of the chart of accounts can be optionally qualified as the

second and third balancing segments respectively. Possible chart of accounts segments that can be tagged as these additional balancing segments include cost center or department, additional aspects of a business commonly used in measuring financial results.

There are several points to consider in using multiple balancing segments:

- Journal entry processing
- Implementation timing
- Change options
- Migration adjustments

### **Journal Entry Processing**

Multiple balancing segments ensure that account balances come from journal entries where the debits equal the credits, and thus, the financial reports are properly generated for each unique instance of account value combinations across the balancing segments. Consider this option carefully as it provides more granular reporting but requires more processing resources.

### **Implementation Timing**

When considering implementing the optional second and third balancing segments, keep in mind that these chart of accounts segment labels are set from the beginning of time and are actively used by your ledgers. This is important to ensure that balances are immediately maintained in accordance with the necessary balancing actions to produce consistent financial reporting for the desired business dimensions. Multiple balancing segment ledgers that are not maintained from the beginning of time require extensive manual balance adjustments to catch up and realign the balances in accordance with the multiple balancing segments.

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#### **Note**

Do not set a segment already qualified as a natural account or intercompany segment as any of the three balancing segments. Validations are not performed when segment labels are assigned, so verify that all are assigned correctly before using your chart of accounts.

---

### **Change Options**

Once a segment has been enabled and designated as a balancing segment, you must not change the segment. Do not disable the segment or remove the segment labels. These settings must be consistently maintained throughout the life of the chart of accounts to control the accuracy and integrity of the financial data.

### **Migration Adjustments**

For charts of accounts migrated from Oracle E-Business Suite to Oracle Fusion General Ledger that use a segment with the secondary balance tracking segment qualifier, steps must be taken to ensure the proper transition to the second and third balancing segments. The required adjustments are extensive.

For ledgers associated with a migrated chart of accounts, its balances must be adjusted manually to be consistent with the second and third balancing segments as though these segment labels have been in place since the beginning of entries for these ledgers. This requires recomputing and updating of the following processes to reflect the correct balancing for each unique combination of segment values across the additional second and third balancing segments.

- Intercompany balancing
- Suspense posting
- Rounding imbalance adjustments on posting
- Entered currency balancing
- Revaluation gains or losses
- Retained earnings calculations at the opening of each new fiscal year
- Cumulative translation adjustments during translation

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**Note**

All previously translated balances must also be purged, and new translations run to properly account for translated retained earnings and cumulative translation adjustments with the correct level of balancing.

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## Using Multiple Balancing Segments: Example

This simple example illustrates balancing along two balancing segments for a simple chart of accounts with three segments.

### Scenario

Your company has a chart of accounts with two balancing segments and three segments, qualified as follows:

- Company: Primary balancing segment
- Cost Center: Second balancing segment
- Account: Natural account segment

The following multiple company and cost center journal has been entered to transfer advertising and phone expense from Company 1, Cost Center A to Company 2, Cost Center B.

Account	Debit	Credit
Company 1-Cost Center A-Advertising Expense Account	600	
Company 2-Cost Center B-Advertising Expense Account		600
Company 1-Cost Center A-Phone Expense Account	800	
Company 2-Cost Center B-Phone Expense Account		800

During the posting process, the last four lines are created to balance the entry across the primary and second balancing segments, company and cost center.

Account	Debit	Credit
Company 1-Cost Center A-Advertising Expense Account	600	
Company 2-Cost Center B-Advertising Expense Account		600
Company 1-Cost Center A-Phone Expense Account	800	
Company 2-Cost Center B-Phone Expense Account		800
Company 1-Cost Center A-Balancing Account		600
Company 2-Cost Center B-Balancing Account	600	
Company 1-Cost Center A-Balancing Account		800
Company 2-Cost Center B-Balancing Account	800	

## FAQs for Manage Charts of Accounts

### How can I use future accounting segments?

To plan for future growth in the business organization that requires additional segments in the chart of accounts, extra segments can be added to the chart of accounts structure during your original implementation. Since all segments of the chart are required and have to be enabled, these unused segments can be assigned value sets that have a single value in the chart of accounts structure instance. This value is set as a default for that segment so that the extra segments are automatically populated when an account code combination is used.

## Define Chart of Accounts for Enterprise Structures: Manage Chart of Accounts Value Sets

### Chart of Accounts Values Sets: Critical Choices

A value set is the collection of account values that are associated with a segment of a chart of accounts structure instance. When creating values sets, consider the following critical choices:

- Module Designation
- Validation Type
- Format Assignments

- Security Rules
- Values Definition

## Module Designation

The module designation is used to tag value sets in Oracle Fusion Applications and sets the value sets apart during upgrades and other processes. Chart of accounts value sets upgraded from Oracle E-Business Suite Release 12 generically bear the module value of **Oracle Fusion Middleware**. When creating new value sets for a chart of accounts, the module can be specified as **Oracle Fusion General Ledger** to distinctly identify its intended use in an accounting flexfield, basically a chart of accounts.

## Validation Type

Assign one of the following validation types to chart of accounts value sets:

- **Independent:** The values are independently selected when filling out the segment in the account combination.
- **Table Validated:** The values are stored in an external table to facilitate maintenance and sharing of the reference data.

## Format Assignments

Value sets for chart of accounts must use the **Value Data Type** of **Character**. The **Value Subtype** is set to **Text**. These two settings support values that are both numbers and characters, which are typical in natural account segment values. Set the maximum length of the value set to correspond to the length of the chart of accounts segment to which it is assigned. Best practices recommend restricting values to **Upper Case Only** or **Numeric** values that are zero filled by default.

## Security Rules

If flexfield data security rules are to be applied to the chart of accounts segment associated with the value set, the **Enable Security** check box must be checked for the assigned value set. In addition, assign a data security resource name to enable creation of a data security object automatically for the value set. The data security object is used in the definition of flexfield data security rules.

## Value Definition

Once these basic characteristics are defined for the value set, values can be added to the set in the Manage Values page.

- Set the values to conform to the value set length and type.
- Enter the value, its description, and its attributes including the **Enable** check box, **Start Date**, and **End Date**.
- Assign the following attributes: **Parent** or **Summary** check box, **Posting is allowed**, and **Budgeting is allowed**.

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## Note

If the value set is used with a natural account segment, the value also requires you set the **Natural Account Type**, with one of the following values: **Asset, Liability, Equity, Revenue** or **Expense**. Other attributes used are **Third Party Control Account, Reconciliation** indicator, and **Financial Category** used with Oracle Transaction Business Intelligence reporting.

Oracle Fusion General Ledger best practice is to define the values for the value set after the value set is assigned to a chart of accounts structure instance. Otherwise you are not able to define the mandatory value attributes, such as summary flag, posting allowed, and account type for natural account segment. The attributes must be added after the value set is assigned to a chart of accounts structure instance.

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## Creating a Value Set for Your Chart of Accounts: Example

Create your value sets before creating your chart of accounts. A value set can be shared by different charts of accounts or across different segments of the same chart of accounts.

### Scenario

You are creating a company value set to be used in your chart of accounts for your enterprise, InFusion America, Inc. Follow these steps:

1. Navigate to the **Manage Chart of Accounts Value Sets** task from within your implementation project and click the **Go to Task**.
2. Click the **Create** icon on the toolbar of the Search Results table. The **Create Value Set** page opens.
3. Enter a unique Value Set Code, **InFusion America Company**, and an optional Description, **Company values for InFusion America Inc.**
4. Select **General Ledger** from the list in the Module field.
5. Select **Independent** as Validation Type.
6. Select **Character** as the Validation Data Type.
7. Click **Save and Close**.

## Configuring Chart of Account Segment for Business Intelligence: Explained

To map the Oracle Fusion General Ledger Accounting Flexfield in Oracle Transaction Business Intelligence (BI) Repository file (RPD) for Oracle Fusion Financials, populate values in the Manage Key Flexfields user interface. These values enable the Chart of Accounts segments for Oracle Fusion Transactional BI and provide the mapping with BI Object names that are used as dimension for each of the Chart of Accounts segments.

Check each of the Chart of Accounts segments' **BI enabled** check box on all segments that you intend to map in the RPD by performing the following steps:

1. From your implementation project or the **Setup and Maintenance** page, query for **Manage Key Flexfields** and select the **Go to Task**.
2. Enter GL# in the **Key Flexfield Code** field.
3. Click **Search** button.
4. Click on **Manage Structure Instances** button.
5. Click the **Search** button.
6. Click on the desired chart of accounts and **Edit** icon.
7. Click on the desired segment and the **Edit** icon.
8. Edit each of the segments by checking the **BI enabled** check box.
9. Click on **Save** button. This should be done for all segments in every **Chart of Accounts Structure Instance** that you intend to be mapped in RPD.
10. Click the **Save and Close** button and the **Done** button.

Populate the **BI Object Name** for each of the **Segment Labels**. This name is the logical table name in the RPD which would be used as the dimension for the corresponding segment. Perform the following steps:

1. From your implementation project or the **Setup and Maintenance** page, query for **Manage Key Flexfields** and select the **Go to Task**.
2. Enter GL# in the **Key Flexfield Code** field.
3. Query for GL# as **Key Flexfield Code** in **Manage Key Flexfields** page.
4. Click **Search** button.
5. Chose **Actions** menu and click on **Manage Segment Labels**
6. Populate the **BI Object Name** for all the segment labels that are need to be mapped in the RPD.

Segment Label Code	BI Object Name
FA_COST_CTR	Dim - Cost Center
GL_BALANCING	Dim - Balancing Segment
GL_ACCOUNT	Dim - Natural Account Segment

7. Click the **Save** button.

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#### Note

For all the non qualified segment labels, the **BI Object Name** should be populated with one of the following:

- Dim - GL Segment1
- Dim - GL Segment2
- Dim - GL Segment3
- Dim - GL Segment4
- Dim - GL Segment5

- Dim - GL Segment6
- Dim - GL Segment7
- Dim - GL Segment8
- Dim - GL Segment9
- Dim - GL Segment10

Deploy the flexfield using the **Deploy Flexfield** button from **Manage Key Flexfields** page.

## Define Chart of Accounts for Enterprise Structures: Manage Account Hierarchies

### Trees: Overview

Use the tree management feature in Oracle Fusion applications to organize data into hierarchies. A hierarchy contains organized data and enables the creation of groups and rollups of information that exist within an organization. Trees are hierarchical structures that enable several data management functions such as better access control, application of business rules at various levels of hierarchies, improved query performance, and so on.

For example, XYZ Corporation has two departments: Marketing and Finance. The Finance department has two functional divisions: Receivables and Payables. Defining a tree for the XYZ Corporation establishes a hierarchy between the organization and its departments, and between the departments and their respective functional divisions. Such a hierarchical modeling of organizational data could be used for executing several data management functions within that organization.

You can create one or more versions of trees, and they can be labeled for better accessibility and information retrieval. You can create trees for multiple data sources, which allow the trees to be shared across Oracle Fusion applications.

#### Tree Structures

A tree structure is a representation of the data hierarchy, and guides the creation of a tree. A tree is an instance of the hierarchy as defined in the tree structure. Tree structures enable you to enforce business rules to which the data must adhere.

The root node is the topmost node of a tree. Child nodes report to the root node. Child nodes at the same level, which report to a common parent node, are called siblings. Leaves are details branching off from a node but not extending further down the tree hierarchy.

#### Tree Versions

A tree is created having only one version. However, users can create more than one tree version depending on the need, and they can make changes to those versions. Depending on varying requirements, users can create one or more tree

versions and publish all of them or some of them by making the versions active at the same time. Similar to any other version control system, versions of trees are maintained to keep track of all the changes that a tree undergoes in its life cycle.

### **Tree Labels**

Tree labels are short names associated with trees and tree structures and point directly to the data source. Tree labels are automatically assigned to the tree nodes. You can store labels in any table and register the label data source with the tree structure.

## **Manage Tree Structures**

### **Tree Structures: Explained**

A tree structure defines the hierarchy for creating trees and prescribes rules based on which trees are created, versioned, and accessed. You can associate multiple data sources with a tree structure. A tree is an instance of this hierarchy. Every tree structure can contain one or more trees.

You can create tree structures specific to an application but you can share tree structures across applications. If you apply version control to the tree structure, it is carried over to the trees that are based on the tree structure. Each tree version contains at least one root node. Occasionally, a tree version may have more than one root node.

An administrator controls the access to tree structures through a set of rules that are periodically audited for validity.

### **Tree Structure Definition: Points to Consider**

Defining a tree structure involves specifying several important pieces of information on the **Create Tree Structure: Specify Definition** page.

#### **Tree Node Selection**

The **Tree Node** table displays data in nodes that exist in the data hierarchy. You must select the correct and most appropriate tree node table to be able to define the tree structure, based on the tree hierarchy you want to establish. This selection also affects the level of security that is set on a tree node and its child entities.

#### **Tree Sharing Mode**

The following options are used to determine the mode of sharing a tree structure across the applications.

- **Open:** Indicates that the tree is associated with all reference data sets.
- **Set ID:** Indicates that the tree will be associated with a specific reference data set.

## Creation Mode

Indicates the source where the tree structure is being defined. For predefined tree structures select Oracle and for custom structures, select Customers.

## Customization

You can customize the predefined tree structures as well as the ones that you created. However, customizing the predefined tree structures involves certain level of access restrictions, and will be limited to specific tree nodes and downwards in hierarchy.

## Multiple Tree Versions

One or more trees and tree versions can be based on a tree structure. A tree structure can have one or more trees and tree versions based on it. Usually, only one active version is permitted at any given point of time. However, depending on the requirement, you can allow two or more tree versions to be in the active state for the same date range. This flexibility allows you to choose the tree version that you want to implement.

## Managing Tree Structures: Points to Consider

You can create, edit, and delete tree structures depending upon the requirement. You can also audit and change the status a tree structure.

## Creating and Editing Tree Structures

You can create trees on the basis of a tree structure. When you edit an active tree structure, the status of the tree structure and all associated trees and their versions change to draft. To reuse a tree structure, you can create a copy of it without copying the associated trees and tree versions. If you delete a tree structure, all the associated trees and tree versions are automatically deleted.

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### Note

For specific information on working with the predefined tree structures that exist in an Oracle Fusion application, refer to the specific product documentation.

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## Setting Status

If you change the status of a tree structure, the status of the trees and tree versions associated with that tree structure also changes.

The following table lists the different statuses of a tree structure.

Status	Meaning
Draft	Yet to be published or is in a modified state.

Active	In use and based on which one or more trees or tree versions are created.
Inactive	Not in use.

## Tree Structure Audit Results: Explained

Use the tree structure audit results to verify the tree structure's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

### Running an Audit

Setting the status of a tree structure to active automatically triggers an audit of that tree structure. You can also manually trigger an audit on the manage Tree Structures page, using **Actions - Audit**. The Tree Structure Audit Result table shows a list of validations that ran against the selected tree structure.

### Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Restrict By Set ID	On the Manage Tree Structures: Specify Data Sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have a reference data set attribute. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain a reference data set attribute.	If reference data set restriction is required for this tree structure, include a reference data set attribute on all data sources. Otherwise, deselect the check box.
Row Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid row flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_RF</code> or a custom table.	<ul style="list-style-type: none"> <li>• The specified table does not exist in the database.</li> <li>• The specified table does not contain the same columns as the <code>FND_TREE_NODE_RF</code> table.</li> </ul>	Correct the row flattened table definition.

<p>Available Label Data Sources</p>	<p>On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, the label data source view object specified for each data source must be accessible, and the primary keys must be valid. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.</p>	<ul style="list-style-type: none"> <li>• Any of the specified label data source view objects do not exist.</li> <li>• Any of the specified label data source view objects do not have primary keys.</li> <li>• When a label data source view object is initially defined, the database registers the primary keys for the view object. If the view object is later modified such that its primary keys no longer match the primary keys that were registered earlier, this validation fails.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct the specified label data source view object.</li> <li>• Correct the primary keys of the specified label data source view object.</li> <li>• Either correct the primary keys in the label data source view object to match the primary keys that were earlier registered in <code>FND_TS_DATA_SOURCE</code>, or correct the primary keys registered in that table to match the new view object definition.</li> </ul>
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<p>Available Data Sources</p>	<p>Each data source view object specified for the tree structure must be accessible, and all its primary key attributes must be valid.</p>	<ul style="list-style-type: none"> <li>• Any of the specified data source view objects do not exist.</li> <li>• When a data source view object is initially defined, the database automatically registers the primary keys for the view object if the <b>Use non-defined primary key columns</b> check box on the Data Source dialog box is not selected. If the check box is selected, the database registers the primary keys specified explicitly by the user on the Add Data Source dialog box. If the registered primary keys contain any duplicates, this validation fails.</li> <li>• The <b>Use non defined primary key columns</b> check box is selected in a data source, but the list of specified primary key columns does not match the primary keys defined in the corresponding data source view object.</li> <li>• Any common attribute that exists in both the data source view object and the tree node view object is not of the same data type in both view objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct the specified data source view object.</li> <li>• Correct the duplicate column in the registered primary keys.</li> <li>• Correct the primary keys of the specified data source view object.</li> <li>• Correct any mismatch in data types.</li> </ul>
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Column Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid column flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_CF</code> or a custom table.	<ul style="list-style-type: none"> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE_CF</code> table.</li> </ul>	Correct the column flattened table definition.
Restrict by Date	On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have effective start date and effective end date attributes. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain effective start date and effective end date attributes.	If the date restriction is required for this tree structure, include the effective start date and effective end date attributes on all data sources. Otherwise, deselect the check box.
Tree Node Table Name	On the Manage Tree Structures: Specify Definition page, a valid tree node table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE</code> or a custom table.	<ul style="list-style-type: none"> <li>No table is specified in the <b>Tree Node Table</b> field.</li> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE</code> table.</li> </ul>	Correct the tree node table definition.
Allow Node Level Security	If the <b>Allow Node Level Security</b> option is set to No for the tree structure, the same option cannot be set to Yes on any of its data sources. This is a database setting that is not visible on the Manage Tree Structures page.	The option is set to No for the tree structure but one or more associated data sources have that option set to Yes.	Correct the option setting in the tree structure and their data sources.

## Specifying Data Sources for Tree Structures: Points to Consider

The data sources provide the items for establishing hierarchy in a tree structure. In the tree management infrastructure, these data sources are Oracle Application

Development Framework (ADF) business components view objects, which are defined by application development.

### Labeling Schemes

Selecting a labeling scheme determines how the tree nodes are labeled. You may select a labeling scheme to assign at the data source level, at the parent node level, or keep it open for customer assignment. You may also choose not to have any labeling scheme. However, if you decide to use any of the labeling schemes, you may need to select the following additional options, to restrict the list of values that appear under the selected tree node.

- **Allow Ragged Nodes:** To include nodes that have no child nodes, and are shorter than the remaining nodes in the entire hierarchy.
- **Allow Skip Level Nodes:** To include nodes that are at the same level but have parent nodes at different levels.

### Restriction of Tree Node Values

You can decide the depth of the tree structure by selecting an appropriate value from the list. Keeping the depth limit open renders an infinite list of values. Using the following options, you can restrict the list of values that appear for selection under a specific tree node.

- **Date Range:** Specifies whether a selection of nodes should be restricted to the same date range as the tree version.
- **Allow Multiple Root Nodes:** Allows you to add multiple root nodes when creating a tree version.
- **Reference Data Set:** Specifies whether a selection of nodes should be restricted to the same set as the tree.

### Data Source Values and Parameters

Tree data sources have optional data source parameters with defined view criteria and associated bind variables. You can specify view criteria as a data source parameter when creating a tree structure, and edit the parameters when creating a tree. Multiple data sources can be associated with a tree structure and can have well-defined relationships among them.

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#### Note

Parameter values customized at the tree level override the default values specified at the tree-structure level.

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The data source parameters are applied to any tree version belonging to that data source, when performing node operations on the tree nodes. Data source parameters also provide an additional level of filtering for different tree structures. The tree structure definition supports three data source parameter types.

- **Bound Value:** Captures any fixed value, which is used as part of the view criteria condition.
- **Variable:** Captures and binds a dynamic value that is being used by the data source view object. This value is used by the WHERE condition of the data flow.
- **View Criteria:** Captures the view criteria name, which is applied to the data source view object.

You can also specify which of the data source parameters are mandatory while creating or editing the tree structure.

View objects from the ADF business components are used as data sources. To associate the view object with the tree structure, you can pick the code from ADF business component view objects and provide the fully qualified name of the view object, for example, oracle.apps.fnd.applcore.trees.model.view.FndLabelVO.

## Specifying Performance Options for a Tree Structure: Points to Consider

Tree structures are heavily loaded with data. As a tree management guideline, use the following settings to improve performance of data rendering and retrieval.

- Row Flattening
- Column Flattening
- Column Flattened Entity Objects
- ADF Business Component View Objects

### Row Flattening

Row flattening optimizes parent-child information for run-time performance by storing additional rows in a table for instantly finding all descendants of a parent without initiating a CONNECT BY query. Row flattening eliminates recursive queries, which allows operations to perform across an entire subtree more efficiently.

To store row flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_RF` table or they can register their own row flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a row-flattened table contains an additional row with Corporation directly being the parent of Region (Corporation-Region).

### Column Flattening

Column flattening optimizes parent-child information for run-time performance by storing an additional column in a table for all parents of a child.

To store column flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_CF` table or they can register their own column flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a flattened table in addition to these columns, contains three new columns: Region, Sales Division, and Corporation. Although positioned next to each other, the column Region functions at the lower level and Corporation at the higher level, retaining the data hierarchy.

### Column Flattened Entity Objects

In the absence of a column-flattened table, if you need to generate the business component view objects for your tree structure for the flattened table, use the tree management infrastructure to correctly provide the fully qualified name of the entity object for the column flattened table.

### ADF Business Component View Objects

View objects from the ADF business components can also be used as data sources, eliminating the need to create new types of data sources. This field is to store the fully qualified name for the business component view object generated by the tree management for business intelligence reporting and usage. The business component view object is a combination of the tree data source and column flattened entity. Using this option prevents data redundancy and promotes greater reuse of existing data, thereby improving the performance of the tree structure.

## Manage Tree Labels

### Tree Labels: Explained

Tree labels are tags that are stored on tree nodes. You can store labels in any table and register the label data source with the tree structure. When a labeling scheme is used for trees, the selected labels are stored in the tree label entity and each tree node contains a reference to a tree label in the labeling scheme.

The following table lists the three ways in which tree labels are assigned to the tree nodes.

Labeling Scheme	Description
Level	Labels that are automatically assigned based on the data source to which the tree node belongs. A level label points to a specific data source. For example, in a tree that reflects the organizational hierarchy of an enterprise, all division nodes appear on one level and all department nodes on another.
Group	Labels that you can arbitrarily assign to tree nodes.
Depth	Labels that are automatically assigned based on the depth of the tree node within the tree. No manual assignment is performed. <hr/> <b>Note</b> In an unbalanced hierarchy, a level may not be equal to depth.

## Manage Trees and Tree Versions

### Managing Trees and Tree Versions: Points to Consider

You can create and edit trees and tree versions depending upon the requirement. A tree can have one or more tree versions. Typically, when changes are made to an existing tree, a new version is created and published.

#### Creating and Editing Trees

Trees are created based on the structure defined in the tree structure. You can create trees, modify existing trees, and delete trees. If you want to copy an existing tree, you can duplicate it. However, only the tree is duplicated and not its versions.

Creating a tree involves specifying the tree definition and specifying the labels that are used on its nodes. If the selected tree structure has data sources and parameters defined for it, they appear on the page allowing you to edit the parameter values at the tree node level.

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#### Note

Parameter values customized at the tree level will override the default values specified at the tree-structure level.

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#### Creating and Editing Tree Versions

Tree versions are created at the time of creating trees. A tree must contain a version.

Editing an existing tree provides you the choice to update the existing version. You can also edit the existing version that lies nested under the tree in the search results.

When you edit a tree version bearing Active status, the status changes to Draft until the modifications are saved or cancelled.

## Tree Version Audit Results: Explained

Use the tree version audit results to verify the tree version's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

## Running an Audit

An audit automatically runs whenever a tree version is set to active. You can also manually trigger an audit on the Manage Trees and Tree Versions page, using **Actions - Audit**. The Tree Version Audit Result table shows a list of validations that ran against the selected tree version.

## Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Effective Date	The effective start and end dates of the tree version must be valid.	The effective end date is set to a value that is not greater than the effective start date.	Modify the effective start and end dates such that the effective start date is earlier than the effective end date.
Root Node	On the Manage Tree Structures: Specify Data Sources page, if the <b>Allow Multiple Root Nodes</b> check box for the <b>Restrict Tree Node List of Values Based on</b> option is not selected, and if the tree structure is not empty, the tree version must contain exactly one root node. This validation does not take place if the check box is selected.	Even if the check box is deselected, the tree version has multiple root nodes.	Modify the tree version such that there is exactly one root node.
Data Source Max Depth	For each data source in the tree structure, on the Data Source dialog box, if the data source is depth-limited, the data in the tree version must adhere to the specified depth limit. This validation does not apply to data sources for which the <b>Maximum Depth</b> field is set to <b>Unlimited</b> .	The tree version has data at a depth greater than the specified depth limit on one or more data sources.	Modify the tree version such that all nodes are at a depth that complies with the data source depth limit.
Duplicate Node	On the Data Source dialog box, if the <b>Allow Duplicates</b> check box is not selected, the tree version should not contain more than one node with the same primary key from the data source. If the check box is selected, duplicate nodes are permitted.	Even when the check box is deselected, the tree version contains duplicate nodes.	Remove any duplicate nodes from the tree version.

Available Node	All nodes in the tree version should be valid and available in the underlying data source.	<ul style="list-style-type: none"> <li>• A node in the tree version does not exist in the data source. Deleting data items from the data source without removing the corresponding nodes from the tree version can result in orphaned nodes in the tree version. For example, if you added node A into your tree version, and subsequently deleted node A from the data source without removing it from the tree version, the validation fails.</li> <li>• The tree version contains a tree reference node, which references another tree version that does not exist.</li> </ul>	Remove any orphaned nodes from the tree version. Update tree reference nodes so that they reference existing tree versions.
Node Relationship	All nodes must adhere to the relationships mandated by the data sources registered in the tree structure.	The tree structure has data sources arranged in a parent-child relationship, but the nodes in the tree do not adhere to the same parent-child relationship. For example, if the tree structure has a Project data source with a Task data source as its child, Task nodes should always be under Project nodes in the tree version. This validation fails if there are instances where a Project node is added as the child of a Task node.	Modify the tree version such that the nodes adhere to the same parent-child relationships as the data sources.

SetID Restricted Node	On the Manage Tree Structures: Specify Data sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for each tree node, the underlying node in the data source must belong to the same reference data set as the tree itself. This restriction does not apply when the check box is not selected.	Even when the check box is selected, the tree version has nodes whose data source values belong to a different reference data set than the tree.	Modify the tree version such that all nodes in the tree have data sources with reference data set matching that of the tree.
Label Enabled Node	On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, all nodes should have labels. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.	The tree structure has a labeling scheme but the tree version has nodes without labels.	Assign a label to any node that does not have a label.

Date Restricted Node	<p>On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each node in the underlying data source must have an effective date range same as the effective date range of the tree version. This restriction does not apply if the check box is not selected.</p>	<p>Even when the check box is selected, there are data source nodes that have a date range beyond the tree version's effective date range. For example, if the tree version is effective from Jan-01-2012 to Dec-31-2012, all nodes in the tree version must be effective from Jan-01-2012 to Dec-31-2012 at a minimum. It is acceptable for the nodes to be effective for a date range that extends partly beyond the tree version's effective date range (for example, the node data source value is effective from Dec-01-2011 to Mar-31-2013). It is not acceptable if the nodes are effective for none or only a part of the tree version's effective date range (for example, the node data source value are effective only from Jan-01-2012 to June-30-2012).</p>	<p>Ensure that all nodes in the tree version have effective date range for the effective date range for the tree version.</p>
Multiple Active Tree Version	<p>On the Manage Tree Structures: Specify Definition page, if the <b>Allow Multiple Active Tree Versions</b> check box is not selected for the tree structure, there should not be more than one active tree version under a tree at any time. This restriction does not apply if the check box is selected.</p>	<p>Even when the check box is not selected, there is more than one active tree version in the tree for the same date range.</p>	<p>Set no more than one tree version to Active within the same date range and set the others to inactive or draft status.</p>
Range Based Node	<p>On the Data Source dialog box, if the <b>Allow Range Children</b> check box is not selected, range-based nodes are not permitted from that data source. This restriction does not apply if the check box is selected.</p>	<p>Even when the check box is not selected, there are range-based nodes from a data source.</p>	<p>Ensure that any range nodes in your tree version are from a data source that allows range children.</p>

Terminal Node	On the Data Source dialog box, if the <b>Allow Use as Leaves</b> check box is not selected, values from that data source cannot be added as leaves (terminal nodes) to the tree version. This restriction does not apply if the check box is selected.	Even when the check box is not selected, values from a data source are added as leaf nodes (terminal nodes).	Modify the tree version such that all terminal nodes are from data sources for which this check box is selected.
Usage Limit	On the Data Source dialog box, if the <b>Use All Values</b> option is selected to set the <b>Usage Limit</b> for the data source, every value in the data source must appear as a node in the tree. This restriction does not apply if <b>None</b> option is selected.	Even if the <b>Use All Values</b> option is selected, there are values in the data source that are not in the tree version.	For each data source value that is not yet available, add nodes to the tree version.

## Trees and Data Sources: How They Work Together

Data sources form the foundation for tree management in Oracle Fusion Applications. Tree structures, trees, and tree versions establish direct and real-time connectivity with the data sources. Changes to the data sources immediately reflect on the **Manage Trees and Tree Versions** page and wherever the trees are being used.

### Metadata

Tree structures contain the metadata of the actual data that is used in Oracle Fusion Applications. Tree structures contain the core business logic that is manifested in trees and tree versions.

### Data Storage

Trees and tree versions are built upon the tree structures. They employ the business rules defined in the tree structures and allow an application to select and enable a subset of trees to fulfill a specific purpose in that application.

### Access Control

Source data is mapped to tree nodes at different levels in the database. Therefore, changes you make to the tree nodes affect the source data. Access control set on trees prevents unwanted data modifications in the database. Access control can be applied to the tree nodes or anywhere in the tree hierarchy.

## Adding Tree Nodes: Points to Consider

Tree nodes are points of data convergence that serve as the building blocks of a tree structure. Technically, the node may be stored either in a product-specific table or in an entity that has been established by tree management as the default

storage mechanism. However, since all data in Oracle Fusion Applications usually have a storage home, only user-created data needs to be stored in an entity.

Nodes are attached to tree versions. Whenever you create or edit a tree version, you need to specify its tree node.

### **Managing Tree Nodes**

You can create, modify, or delete tree nodes on the **Tree Version: Specify Nodes** page. To add a tree node, ensure that the tree structure with which the tree version is associated is mapped to a valid data source. You can also duplicate a tree node if the multiple root node feature is enabled.

### **Node Levels**

In most trees, all nodes at the same level represent the same kind of information. For example, in a tree that reflects the organizational hierarchy, all division nodes appear on one level and all department nodes on another. Similarly, in a tree that organizes a user's product catalog, the nodes representing individual products might appear on one level and the nodes representing product lines on the next higher level.

When levels are not used, the nodes in the tree have no real hierarchy or reporting structure but do form a logical summarization structure. Strictly enforced levels mean that the named levels describe each node's position in the tree. This is natural for most hierarchies. Loosely enforced levels mean that the nodes at the same visual level of indentation do not all represent the same kind of information, or nodes representing the same kind of information appear at multiple levels. With loosely enforced levels, users assign a level to each node individually. The level is not tied to a particular visual position.

### **Node Types**

A tree node has the following node types.

- **Single:** Indicates that the node is a value by itself.
- **Range:** Indicates that the node represents a range of values and possibly could have many children. For example, a tree node representing account numbers 10000 to 99999.
- **Referenced Tree:** Indicates that the tree node is actually another version for the tree based on the same tree structure, which is not physically stored in the same tree. For example, a geographic hierarchy for the United States can be referenced in a World geographic hierarchy.

## **Importing Segment Values and Hierarchies: Explained**

Use Import Segment Values and Hierarchies process to load segment values and hierarchies if you maintain your chart of accounts reference data outside Oracle Fusion applications. You can load your segment values and hierarchies by populating two tables: `GL_SEGMENT_VALUES_INTERFACE` table and `GL_SEGMENT_HIER_INTERFACE` table, and running the Import Segment Values and Hierarchies process.

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**Note**

You can load data to interface tables using predefined templates and the Load Interface File for Import scheduled process, which are both part of the External Data Integration Services for Oracle Cloud feature. For other implementations, optionally use this feature only if you have SFTP configured for it.

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**The GL\_SEGMENT\_VALUES\_INTERFACE and GL\_SEGMENT\_HIER\_INTERFACE tables**

You can use GL\_SEGMENT\_VALUES\_INTERFACE to load segment values and GL\_SEGMENT\_HIER\_INTERFACE to load segment value hierarchies to Oracle Fusion applications. You can find details of the columns of the interface table in Oracle Enterprise Repository (OER) for Oracle Fusion Applications.

**Assigning Values for Columns in the GL\_SEGMENT\_VALUES\_INTERFACE table**

You must enter values in all columns of the interface table that require values, which includes all of the not null columns, in order for the Import Segment Values and Hierarchies process to be successful. Enter values in the following required columns of the interface table:

Column Name	Value
STATUS_CODE	Enter the value NEW to indicate that you are bringing new segment value data.
VALUE_SET_CODE	Enter the value set code for the segment values.
VALUE	Enter the segment value.
SUMMARY_FLAG	Select N if the segment value is a child value or Y if the segment value is a parent value.
ENABLED_FLAG:	Select Y to enable the segment value. Enter N to disable the segment value.
ACCOUNT_TYPE:	Enter the natural account type if the segment value is for natural account segment. Valid values are: A for Assets, L for Liabilities, E for Expenses, O for Owner's Equities, and R for Revenues.
ALLOW_POSTING_FLAG	Select Y if posting is allowed for this segment value. Select N if posting is not allowed.
OBJECT_VERSION_NUMBER	Enter default value of 1.

You can enter values for the following optional columns:

Column Name	Value
START_DATE_ACTIVE	Enter the start date of the segment value
END_DATE_ACTIVE	Enter the end date of the segment value.
THIRD_PARTY_CTRL_ACCOUNT	Enter the third party control account value. Valid values are: CUSTOMER, SUPPLIER, R for Restrict Manual Journals, Y, and N.
FINANCIAL_CATEGORY	Enter a financial category value for Oracle Transactional Business Intelligence reporting. Valid values are values defined in the FINANCIAL_CATEGORY lookup type.

DESCRIPTION	There are different description columns for different languages. To see segment value description in a different language installation, you need to populate the segment description for that language too.
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The following columns should be left as null as Import Segment Values and Hierarchies process uses them for internal processing or does not use them in the current release.

- CREATION\_DATE
- CREATED\_BY
- LAST\_UPDATE\_DATE
- LAST\_UPDATE\_LOGIN
- LAST\_UPDATED\_BY
- SEGMENT\_VALUE\_INTERFACE\_ID
- REQUEST\_ID
- LOAD\_REQUEST\_ID

#### Assigning Values for Columns in the **GL\_SEGMENT\_HEIR\_INTERFACE** table

You must enter values in all columns of the interface table that require values, which includes all of the not null columns, in order for the Import Segment Values and Hierarchies process to be successful. Enter values in the following required columns of the interface table:

Column Name	Value
STATUS_CODE	Enter the value NEW to indicate that you are bringing new hierarchy data.
VALUE_SET_CODE	Enter the value set code for the segment values.
TREE_CODE	Enter the hierarchy name (tree code).
TREE_VERSION NAME	Enter the hierarchy version name (tree version name).
TREE_VERSION_START_DATE_ACTIVE	Enter the date that the tree version is activated.
TREE_VERSION_END_DATE_ACTIVE	Enter the date that the tree version is inactivated.
VALUE	Enter the segment value.
PARENT_VALUE	Select N if the segment value is a child value or Y if the segment value is a parent value.
DEPTH	Enter the depth of the hierarchy which shows the many ancestors the segment value has in the hierarchy.
OBJECT_VERSION_NUMBER	Enter default value of 1.

The following columns should be left as null as Import Segment Values and Hierarchies process uses them for internal processing or does not use them in the current release.

- CREATION\_DATE

- CREATED\_BY
- LAST\_UPDATE\_DATE
- LAST\_UPDATE\_LOGIN
- LAST\_UPDATED\_BY
- SEGMENT\_VALUE\_INTERFACE\_ID
- REQUEST\_ID
- LOAD\_REQUEST\_ID

## Loading Data to the Segment Value and Hierarchies Interface Tables: Explained

Load the segment values and hierarchies to the interface table by using the following steps.

1. Load segment values and hierarchies to comma separated values (csv) files. You can use the sample csv file or xls file that's provided in Oracle Enterprise Repository (OER) for Oracle Fusion Applications as a reference.
2. Upload the comma separated values (csv) file to the secure FTP server.
3. Run the Load Interface File for Import process.
4. After the data is loaded to the interface table, you can run the Import Segment Values and Hierarchies process to load the segment values and hierarchies.

## Define Chart of Accounts for Enterprise Structures: Manage Accounting Calendars

### Defining Accounting Calendars: Critical Choices

Define an accounting calendar to create your accounting year and the periods it contains. Specify common calendar options that the application uses to automatically generate a calendar with its periods. Specifying all the options makes defining a correct calendar easier and more intuitive with fewer errors. The choices you make when specifying the following options are critical, because it is difficult to change your accounting calendar after a period status is set to open or future enterable.

- Start Date
- Period Frequency
- Adjusting Period Frequency
- Period Name Format

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#### Note

In Oracle Fusion, the common calendar types, monthly, weekly, 4-4-5, 4-5-4, 5-4-4, 4-week, quarterly, and yearly, are automatically generated. This functionality makes it easier to create and maintain accounting calendars. By using the period frequency option, you no longer have to go through the tedious task of defining each period manually.

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### Start Date

If you plan to run translation, specify a calendar start date that is a full year before the start date of the year of the first translation period for your ledger. Translation cannot be run in the first period of a calendar. Consider how many years of history you are going to load from your previous system and back up the start date for those years plus one more. You cannot add previous years once the first calendar period has been opened.

### Period Frequency

Use period frequency to set the interval for each subsequent period to occur, for example, monthly, quarterly, or yearly. If you select the period frequency of Other, by default, the application generates the period names, year, and quarter number. You specify the start and end dates. You must manually enter the period information. For example, select the period frequency of Other and enter 52 as the number of periods when you want to define a weekly calendar. For manually entered calendars, when you click the **Add Year** button, the application creates a blank year. Then, you must manually enter the periods for the new year. The online validation helps prevent erroneous entries.

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### Note

In Oracle Fusion applications a calendar can only have one period frequency and period type. Therefore, if you have an existing calendar with more than one period type associated with it, during the upgrade from Oracle E-Business Suite, separate calendars are created based on each calendar name and period type combination.

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### Adjusting Period Frequency

Use the adjusting period frequency to control when the application creates adjusting periods. For example, some of the frequencies you select add one adjusting period at year end, two at year end, or one at the end of each quarter. The default is None which adds no adjusting periods. If you select the frequency of Other, the **Number of Adjusting Periods** field is displayed. Enter the number of desired adjusting periods and then, manually define them.

### Period Name Format Region

The **User-Defined Prefix** field in the Period Name Format region is an optional feature that allows you to enter your own prefix. For example, define a weekly calendar and then enter a prefix of Week, - as the separator, and the period name format of Period numberYY fiscal year. The application creates the names of Week1-11, Week2-11, through Week52-11. The options for the **Format** field are predefined values. The list of values is filtered based on the selected separator and only displays the options that match the selected separator.

The year displayed in the period names is based on the selected period name format and the dates the period covers or if the period crosses years, on the year of the start date of the period. For example, April 10, 2010 to May 9, 2010 has the period name of Apr-10 and December 10, 2010 to January 9, 2011 has the name of Dec-10. If period frequency is Other, then the period format region is hidden. The application generates a temporary period name for calendars with period frequency of Other, using a fixed format of Period numberYY. You can override this format with your own customized period names.

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**Note**

For an accounting calendar that is associated with a ledger, changing period names or adding a year updates the accounting period dimension in the balances cubes.

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## Calendar Validation: How It Works with the Accounting Calendar

Calendar validation is automatic and prevents serious problems when you begin using the calendar. Once you set a calendar period status to open or future enterable, you cannot edit the period.

### Settings That Affect Calendar Validation

The calendar validation runs automatically when you save the calendar.

### How the Calendar Is Validated

The following table lists the validation checks performed when the accounting calendar is saved.

Validation Performed	Example of Data
Unique period number	2 assigned for two periods
Unique period name	Jan-11 entered twice
Period number beyond the maximum number of periods per year	13 for a 12 period calendar with no adjusting periods
Entered period name contains spaces	Jan 11
Single or double quotes in the period name	Jan '11
Nonadjusting periods with overlapping dates	01-Jan-2011 to 31-Jan-2011 and 30-Jan-2011 to 28-Feb-2011
Period date gaps	01-Jan-2011 to 28-Jan-2011 and 31-Jan-2011 to 28-Feb-2011
Missing period numbers	Periods 1 through 6 defined for a twelve month calendar
Period number gaps	1, 3, 5
Period numbers not in sequential order by date	Period 1 covers 01-Jan-2011 to 31-Jan-2011 and period 2 covers 01-Mar-2011 to 31-Mar-2011, and period 3 covers 01-Feb-2011 to 28-Feb-2011.
Quarter number gaps	1, 3, 4

Quarters not in sequential order by period	1, 3, 2, 4
Period start or end dates more than one year before or after the fiscal year	July 1, 2010 in a 2012 calendar

## FAQs for Manage Accounting Calendars

### How can I identify errors in my accounting calendar?

Oracle Fusion General Ledger identifies erroneous entries online as you enter a new calendar or change data on an existing calendar. The application also automatically validates the data when you save the calendar.

### What's the difference between calendar and fiscal period naming?

The period naming format determines the year that is appended to the prefix for each period in the calendar. For the example, your accounting year has a set of twelve accounting period with a start date of September 1, 2011 and the end date is August 31, 2012, with each period's date range following the natural calendar month date range.

Calendar period naming format: Select the calendar period format to append the period's start date's year to the prefix. For the period covering September 1, 2011 to December 31, 2011, then 2011 or just 11, depending on the period format selected, is appended to each period's name. For the remaining periods covering January 1, 2012 to August 31, 2012, then 2012 or 12, is appended to each period's name.

Fiscal period naming format: Select the fiscal period format to always append the period's year assignment to the prefix. If the accounting periods in the set of twelve are all assigned the year of 2012, then 2012 or just 12, depending on the period format selected, is appended to the period name of all 12 periods.

### When do I update an existing calendar?

Update an existing calendar before the new periods are needed as future periods, based on the future period setting in your accounting configuration. If a complete year has been defined and validated, use the **Add Year** button to add the next year quickly. Accept or change the new rows as required. For example, with the Other frequency type calendar, dates may differ from what the application generates.

### What happens if I upgrade my calendar from Oracle E-Business Suite Release 12?

The migration script assigns a period frequency that most closely matches your Oracle E-Business Suite Release 12 calendar. When you use the Oracle Fusion applications Add Year functionality for the first time, you have an opportunity to review and change the period frequency. The Calendar Options page opens only for calendars upgraded from Release 12 to allow one time modification.

Make your changes to the period frequency, adjusting period frequency, and period name format, including the prefix and separator, as needed. Changes can not conflict with the existing upgraded calendar definition. Update the calendar name and description in the calendar header, as needed, for all calendars. Period details for a new year will be generated automatically based on the latest calendar options. You can also manually update the calendar. The modified calendar options affect future years only.

## Define Accounting Configurations of Enterprise Structures: Manage Primary or Secondary Ledgers

### Accounting Configuration Offerings: Overview

The Setup and Maintenance work area in the Oracle Fusion Applications is used to manage the configuration of legal entities, ledgers, and reporting currencies that comprise your accounting configuration. To create a new legal entity or ledger, your implementation consultant or system administrator must create an implementation project. This implementation project can be populated by either adding a financials related offering or one or more task lists.

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#### Note

Setup tasks that are not related to the ledger or legal entity specific setup tasks can be invoked from either an implementation project or launched directly from the Setup and Maintenance work area.

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There are two offerings predefined for financial implementations.

- The Oracle Fusion Accounting Hub offering is used to add the Oracle Fusion General Ledger and Oracle Fusion Subledger Accounting application features to an existing enterprise resource planning (ERP) system to enhance the current reporting and analysis.
- The Oracle Fusion Financials offering, which includes the Oracle Fusion General Ledger and Oracle Fusion Subledger Accounting application features, as well as at least one of the subledger financial applications.

When adding an offering to an implementation project, implementation consultants can customize the tasks displayed by adding additional tasks to the implementation project.

### Ledgers and Subledgers: Explained

Oracle Fusion Applications reflect the traditional segregation between the general ledger and associated subledgers. Detailed transactional information is captured in the subledgers and periodically imported and posted in summary or detail to the ledger.

A ledger determines the currency, chart of accounts, accounting calendar, ledger processing options, and accounting method for its associated subledgers.

Each accounting setup requires a primary ledger and optionally, one or more secondary ledgers and reporting currencies. Reporting currencies are associated with either a primary or secondary ledger.

The number of ledgers and subledgers is unlimited and determined by your business structure and reporting requirements.

### **Single Ledger**

If your subsidiaries all share the same ledger with the parent company or they share the same chart of accounts and calendar, and all reside on the same applications instance, you can consolidate financial results in Oracle Fusion General Ledger in a single ledger. Use Oracle Fusion Financial Reporting functionality to produce individual entity reports by balancing segments. General Ledger has three balancing segments that can be combined to provide detailed reporting for each legal entity and then rolled up to provide consolidated financial statements.

### **Multiple Ledgers**

Accounting operations using multiple ledgers can include single or multiple applications instances. You need multiple ledgers if one of the following is true:

- You have companies that require different account structures to record information about transactions and balances. For example, one company may require a six-segment account, while another needs only a three-segment account structure.
- You have companies that use different accounting calendars. For example, although companies may share fiscal year calendars, your retail operations require a weekly calendar, and a monthly calendar is required for your corporate headquarters.
- You have companies that require different functional currencies. Consider the business activities and reporting requirements of each company. If you must present financial statements in another country and currency, consider the accounting principles to which you must adhere.

### **Subledgers**

Oracle Fusion Subledgers capture detailed transactional information, such as supplier invoices, customer payments, and asset acquisitions. Oracle Fusion Subledger Accounting is an open and flexible application that defines the accounting rules, generates detailed journal entries for these subledger transactions, and posts these entries to the general ledger with flexible summarization options to provide a clear audit trail.

## **Ledgers: Points to Consider**

Companies account for themselves in primary ledgers, and, if necessary, secondary ledgers and reporting currencies. Your transactions from your subledgers are posted to your primary ledgers and possibly, secondary ledgers or reporting currencies. Local and corporate compliance can be achieved through

an optional secondary ledger, providing an alternate accounting method, or in some cases, a different chart of accounts. Your subsidiary's primary and secondary ledgers can both be maintained in your local currency, and you can convert your local currency to your parent's ledger currency to report your consolidated financial results using reporting currencies or translation.

## Primary Ledgers

A primary ledger is the main record-keeping ledger. Like any other ledger, a primary ledger records transactional balances by using a chart of accounts with a consistent calendar and currency, and accounting rules implemented in an accounting method. The primary ledger is closely associated with the subledger transactions and provides context and accounting for them.

To determine the number of primary ledgers, your enterprise structure analysis must begin with your financial, legal, and management reporting requirements. For example, if your company has separate subsidiaries in several countries worldwide, enable reporting for each country's legal authorities by creating multiple primary ledgers that represent each country with the local currency, chart of accounts, calendar, and accounting method. Use reporting currencies linked to your country specific primary ledgers to report to your parent company from your foreign subsidiaries. Other considerations, such as corporate year end, ownership percentages, and local government regulations and taxation, also affect the number of primary ledgers required.

## Secondary Ledgers

A secondary ledger is an optional ledger linked to a primary ledger for the purpose of tracking alternative accounting. A secondary ledger can differ from its primary ledger by using a different accounting method, chart of accounts, accounting calendar, currency, or processing options. All or some of the journal entries processed in the primary ledger are transferred to the secondary ledger, based on your configuration options. The transfers are completed based on the conversion level selected. There are four conversion levels:

- **Balance:** Only Oracle Fusion General Ledger balances are transferred to the secondary ledger.
- **Journal:** General Ledger journal posting process transfers the journal entries to the secondary ledger.
- **Subledger:** Oracle Fusion Subledger Accounting creates subledger journals to subledger level secondary ledgers as well as reporting currencies.
- **Adjustments Only:** Incomplete accounting representation that only holds adjustments. The adjustments can be manual or detailed adjustments from Subledger Accounting. This type of ledger must share the same chart of accounts, accounting calendar, and period type combination, and currency as the associated primary ledger.

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### Note

A full accounting representation of your primary ledger is maintained in any subledger level secondary ledger.

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Secondary ledgers provide functional benefits, but produce large volumes of additional journal entry and balance data, resulting in additional performance and memory costs. When adding a secondary ledger, consider your needs for secondary ledgers or reporting currencies, and select the least costly data conversion level that meets your requirements. For secondary ledgers, the least costly level is the adjustment data conversion level because it produces the smallest amount of additional data. The balance data conversion level is also relatively inexpensive, depending upon how often the balances are transferred from the primary to the secondary ledger. The journal and subledger data conversion levels are much more expensive, requiring duplication of most general ledger and subledger journal entries, as well as general ledger balances.

For example, you maintain a secondary ledger for your International Financial Reporting Standards (IFRS) accounting requirements, while your primary ledger uses US Generally Accepted Accounting Principles (GAAP). You decided to select the subledger level for your IFRS secondary ledger. However, since most of the accounting is identical between US GAAP and IFRS, a better solution is to use the adjustment only level for your secondary ledger. The subledger level secondary ledger requires duplication of most subledger journal entries, general ledger journal entries, and general ledger balances. With the adjustment only level, your secondary ledger contains only the adjustment journal entries and balances necessary to convert your US GAAP accounting to the IFRS accounting, which uses a fraction of the resources that are required by full subledger level secondary ledger.

Following are scenarios that may require different combinations of primary and secondary ledgers:

- The primary and secondary ledgers use different charts of accounts to meet varying accounting standards or methods. A chart of accounts mapping is required to instruct the application how to propagate balances from the source (primary) chart of accounts to the target (secondary) chart of accounts.
- The primary and secondary ledgers use different accounting calendars to comply with separate industry and corporate standards.

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#### Note

Use the same currency for primary and secondary ledgers to avoid difficult reconciliations, if you have the resources to support the extra posting time and data storage. Use reporting currencies or translations to generate the different currency views needed to comply with internal reporting needs and consolidations.

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### Reporting Currencies

Reporting currencies maintain and report accounting transactions in additional currencies. Each primary and secondary ledger is defined with a ledger currency that is used to record your business transactions and accounting data for that ledger. It is advisable to maintain the ledger in the currency in which the majority of its transactions are denominated. For example, create, record, and close a transaction in the same currency to save processing and reconciliation time. Compliance, such as paying local transaction taxes, is also easier using a

local currency. Many countries require that your accounting records be kept in their national currency.

If you need to maintain and report accounting records in different currencies, you do this by defining one or more reporting currencies for the ledger. There are three conversion levels for reporting currencies:

- **Balance:** Only General Ledger balances are converted into the reporting currency using translation.
- **Journal:** General Ledger journal entries are converted to the reporting currency during posting.
- **Subledger:** Subledger Accounting creates subledger reporting currency journals along with primary ledger journals.

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**Note**

A full accounting representation of your primary ledger is maintained in any subledger level reporting currency. Secondary ledgers cannot use subledger level reporting currencies.

Of the three data conversion levels available, the balance data conversion level is typically the least expensive, requiring duplication of only the balance level information. The journal and subledger data conversion levels are more expensive, requiring duplication of most general ledger and subledger journal entries, as well as general ledger balances.

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Do not use journal or subledger level reporting currencies if your organization has only an infrequent need to translate your financial statements to your parent company's currency for consolidation purposes. Standard translation functionality meets this need. Consider using journal or subledger level reporting currencies when any of the following conditions exist.

- You operate in a country whose unstable currency makes it unsuitable for managing your business. As a consequence, you need to manage your business in a more stable currency while retaining the ability to report in the unstable local currency.
- You operate in a country that is part of the European Economic and Monetary Union (EMU), and you choose to account and report in both the European Union currency and your National Currency Unit (NCU).

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**Note**

The second option is rare since most companies have moved beyond the initial conversion to the EMU currency. However, future decisions could add other countries to the EMU, and then, this option would again be used during the conversion stage.

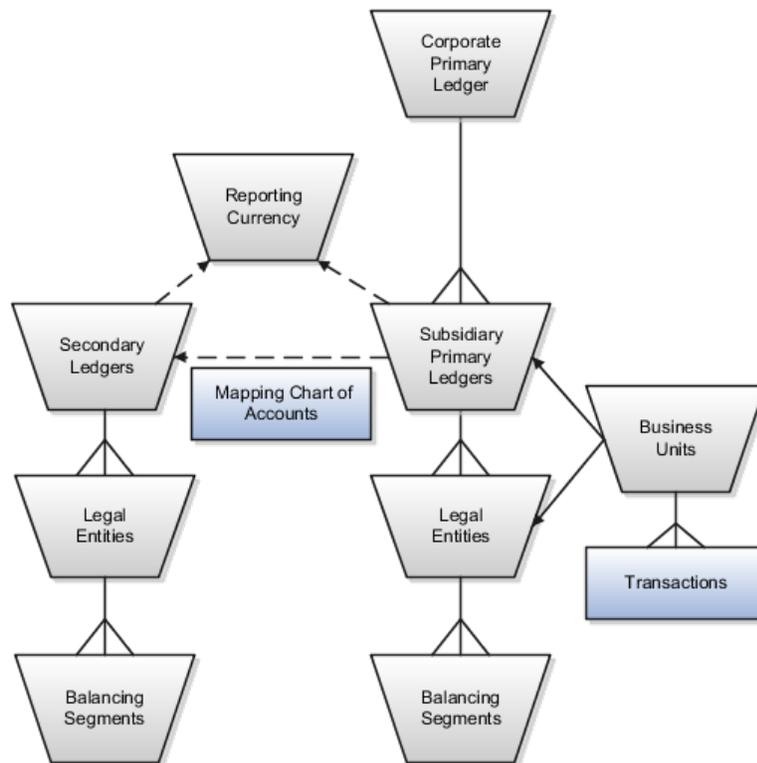
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## Financial Ledgers: How They Fit Together

Oracle Fusion Applications is an integrated suite of business applications that connects and automates the entire flow of the business process across both front and back office operations and addresses the needs of a global enterprise.

The process of designing the enterprise structure, including the accounting configuration, is the starting point for an implementation. This process often includes determining financial, legal, and management reporting requirements, setting up primary and secondary ledgers, making currency choices, and examining consolidation considerations.

This figure shows the enterprise structure components and their relationships to each other. Primary ledgers are connected to reporting currencies and secondary ledgers to provide complete reporting options. Legal entities are assigned to ledgers, both primary and secondary, and balancing segments are assigned to legal entities. Business units must be connected to both a primary ledger and a default legal entity. Business units can record transactions across legal entities.



## Primary Ledgers

A primary ledger is the main record-keeping ledger. Create a primary ledger by combining a chart of accounts, accounting calendar, ledger currency, and accounting method. To determine the number of primary ledgers, your enterprise structure analysis must begin with determining financial, legal, and management reporting requirements. For example, if your company has separate subsidiaries in several countries worldwide, create multiple primary ledgers representing each country with the local currency, chart of accounts, calendar, and accounting method to enable reporting to each country's legal authorities.

If your company just has sales in different countries, with all results being managed by the corporate headquarters, create one primary ledger with multiple balancing segment values to represent each legal entity. Use secondary ledgers or reporting currencies to meet your local reporting requirements, as needed. Limiting the number of primary ledgers simplifies reporting because consolidation is not required. Other consideration such as corporate year end,

ownership considerations, and local government regulations, also affect the number of primary ledgers required.

## Secondary Ledgers

A secondary ledger is an optional ledger linked to a primary ledger. A secondary ledger can differ from its related primary ledger in chart of accounts, accounting calendar, currency, accounting method, or ledger processing options. Reporting requirements, for example, that require a different accounting representation to comply with international or country-specific regulations, create the need for a secondary ledger.

Below are scenarios and required action for different components in primary and secondary ledgers:

- If the primary and secondary ledgers use different charts of accounts, the chart of accounts mapping is required to instruct the system how to propagate journals from the source chart of accounts to the target chart of accounts.
- If the primary and secondary ledgers use different accounting calendars, the accounting date and the general ledger date mapping table will be used to determine the corresponding non-adjusting period in the secondary ledger. The date mapping table also provides the correlation between dates and non-adjusting periods for each accounting calendar.
- If the primary ledger and secondary ledger use different ledger currencies, currency conversion rules are required to instruct the system on how to convert the transactions, journals, or balances from the source representation to the secondary ledger.

Note: Journal conversion rules, based on the journal source and category, are required to provide instructions on how to propagate journals and types of journals from the source ledger to the secondary ledger.

## Reporting Currencies

Reporting currencies are the currency you use for financial, legal, and management reporting. If your reporting currency is not the same as your ledger currency, you can use the foreign currency translation process or reporting currencies functionality to convert your ledger account balances in your reporting currency. Currency conversion rules are required to instruct the system on how to convert the transactions, journals, or balances from the source representation to the reporting currency.

## Legal Entities

Legal entities are discrete business units characterized by the legal environment in which they operate. The legal environment dictates how the legal entity should perform its financial, legal, and management reporting. Legal entities generally have the right to own property and the obligation to comply with labor laws for their country. They also have the responsibility to account for themselves and present financial statements and reports to company regulators, taxation authorities, and other stakeholders according to rules specified in the relevant legislation and applicable accounting standards. During setup, legal entities are assigned to the accounting configuration, which includes all ledgers, primary and secondary.

## Balancing Segments

You assign primary balancing segment values to all legal entities before assigning values to the ledger. Then, assign specific primary balancing segment values to the primary and secondary ledgers to represent nonlegal entity related transactions such as adjustments. You can assign any primary balancing segment value that has not already been assigned to a legal entity. You are allowed to assign the same primary balancing segment values to more than one ledger. The assignment of primary balancing segment values to legal entities and ledgers is performed within the context of a single accounting setup. The Balancing Segment Value Assignments report is available to show all primary balancing segment values assigned to legal entities and ledgers across accounting setups to ensure the completeness and accuracy of their assignments. This report allows you to quickly identify these errors and view any unassigned values.

## Business Units

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. When a business function produces financial transactions, a business unit must be assigned a primary ledger, and a default legal entity. Each business unit can post transactions to a single primary ledger, but it can process transactions for many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. You define business units as separate task generally done after the accounting setups steps.

The business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Enables sharing of sets of reference data across applications

For example, if your company requires business unit managers to be responsible for managing all aspects of their part of the business, then consider using two balancing segments, company and business unit to enable the production of business unit level balance sheets and income statements.

Transactions are exclusive to business units. In other words, you can use business unit as a securing mechanism for transactions. For example, if you have an export business that you run differently from your domestic business, use business units to secure members of the export business from seeing the transactions of the domestic business.

# Define Accounting Configurations of Enterprise Structures: Specify Ledger Options

## Specifying Ledger Options: Worked Example

This example demonstrates specifying the ledger options for your primary ledger. Your company, InFusion Corporation, is a multinational conglomerate that operates in the United States (US) and the United Kingdom (UK). InFusion has purchased an Oracle Fusion enterprise resource planning (ERP) solution including Oracle Fusion General Ledger and all of the Oracle Fusion subledgers.

After completing your InFusion America Primary Ledger, select **Specify Ledger Options** under the Define Accounting Configuration task list on the Functional Setup Manager page.

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#### Note

Both primary and secondary ledgers are created in the same way and use the same user interface to enable their specific ledger options.

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### Reviewing General Region Options

1. Accept the **Name** and **Description** defaults for the ledger selected.
2. Review the **Currency** and **Chart of Accounts** for the specified ledger, which are automatically populated.

### Setting Accounting Calendar Region Options

1. Review the **Accounting Calendar** that defaults from your ledger.
2. Select Jan-2011 as the **First Open Period** for your ledger.

Important: Select a period after the first defined period in the ledger calendar to enable running translation. You cannot run translation in the first defined period of a ledger calendar. In this example, your calendar began with Jan-2010.

3. Enter 3 for the **Number of Future Enterable Periods**.

Any value between 0 and 999 periods can be specified to permit entering journals but not posting them in future periods. Minimize the number of open and future periods to prevent entry in the wrong period.

### Selecting the Subledger Accounting Region Options

1. Accept the default **Accounting Method** from your ledger.
2. Select US American English as your **Journal Language**.

### Completing the Period Close Region Options

1. Enter your **Retained Earnings Account**:  
101-00-31330000-0000-000-0000-0000.

This account is required for the General Ledger to perform the movement of revenue and expense account balances to this account at the end of the accounting year.

2. Enter your **Cumulative Translation Adjustment Account**:  
101-00-31350000-0000-000-0000-0000.

Note: The Cumulative Translation Adjustment (CTA) account is required for ledgers running translation.

3. Do not enter a **Default Period End Rate Type** or **Default Period Average Rate Type**.

The values entered here are used as the default for balance level reporting currency processing. InFusion America Primary Ledger is using the subledger level reporting currency processing.

## Specifying the Journal Processing Region Options

1. Specify the Balance options as outlined in the following table.

Option	Setting
Enable Suspense	General Ledger
Default Expense Account	101-00-98199999-0000-000-0000-0000
Rounding Account	101-10-98189999-0000-000-0000-0000
Entered Currency Balancing Account	101-10-98179999-0000-000-0000-0000
Balancing Threshold Percent	10

2. Click all the following Entry options listed in the table.

Option	Description
Enable journal approval	Click to enable journal approval functionality. Approval rules must be created in the Oracle Fusion Approvals Management (AMX).
Notify when prior period journal	Notify the user when a prior period date is selected on a journal entry.
Allow mixed and statistical journals	Enter both monetary and statistical amounts on the same line in a journal entry.
Validate reference date	Requires a reference date in an open or future enterable period.

3. Click the **Separate journals by accounting date during journal import** for the Import option to create individual journal entries for each accounting date.
4. For the Reversal options, select InFusion America Accrual Set from the list of values in the **Journal Reversal Criteria Set** field and click the **Launch AutoReverse after open period** to reverse accrual journal entries automatically when a new period is opened.
5. Click the **Enable intercompany accounting** for the Intercompany option to enable automatic balancing by the application for primary, second, and third balancing segments (if implemented) on intercompany journal entries and transactions.

Note: To complete the intercompany accounting functionality, you must define intercompany rules.

## FAQs for Specify Ledger Options

### What happens if I change the cumulative adjustment account?

To avoid data corruption, your cumulative adjustment account (CTA) can only be changed if you first perform the following set of steps:

- Purge all translated balances
- Change the CTA account
- Rerun translation

### **What happens if I change the retained earnings account?**

To avoid data corruption, your retained earnings account can only be changed if you first perform the following set of steps:

- Enter and post journals to bring the ending balances for your income statement accounts to zero at the end of each accounting year
- Purge actual translated balances
- Update the retained earnings account
- Reverse the journal entries use to bring the ending account balances to zero and rerun translation

## **Define Accounting Configurations of Enterprise Structures: Manage Reporting Currencies**

### **Reporting Currency Balances: How They Are Calculated**

Reporting currency balances, set at the journal or subledger level, are updated when journal entries that originate in Oracle Fusion General Ledger are posted and converted to your reporting currencies. This process includes General Ledger manual journals, periodic journals, and allocations, and at the subledger level, journals from Oracle Fusion Subledger Accounting and imported from sources other than your Oracle Fusion subledgers. When you post a journal in a ledger that has one or more reporting currencies defined, the posting process creates new journals converted to each of your reporting currencies and includes them in the same batch as the original journal with a status of Posted.

### **Settings That Affect**

Reporting currencies share a majority of the ledger options with their source ledger. For example, the reporting currency uses the same suspense account and retained earnings accounts as its source ledger. However, there are certain options that need to be set specifically for the reporting currencies. For example, reporting currencies are maintained at one of these three currency conversion levels:

- **Balance Level:** Only balances are maintained in the reporting currency using the General Ledger Translation process.
- **Journal Level:** Journal entries and balances are converted to the reporting currency by the General Ledger Posting process.

- **Subledger Level:** Subledger Accounting creates reporting currency journals for subledger transactions. General Ledger converts journals that originated in General Ledger or that are imported from sources other than the Oracle Fusion subledgers. The full accounting representation of your primary ledger is maintained in the subledger level reporting currency.

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**Note**

Secondary Ledgers cannot use subledger level reporting currencies.

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There are multiple dependencies between a reporting currency and its source ledger. Therefore, it is important that you complete your period opening tasks, daily journal or subledger level reporting currencies accounting tasks, and period closing tasks in the correct order. Some guidelines are presented in the table below.

Type	Task
Period Opening Tasks	Open the accounting period in both your ledger and reporting currencies before you create or import journals for the period. Converted journals are only generated in your reporting currency if the period is open or future enterable.
Daily Tasks	Enter the daily conversion rates to convert your journals to each of your reporting currencies.
Period Closing Tasks	<ul style="list-style-type: none"> <li>• Finish entering all regular and adjusting journals for the period in your ledger.</li> <li>• Post all unposted journals in your ledger if not already done in the previous step.</li> <li>• Post all unposted journals in your reporting currencies if not already done in the previous step.</li> <li>• Run Revaluation in both your ledger and reporting currencies. Post the resulting revaluation batches in each ledger.</li> <li>• As needed, translate balances in your ledger.</li> <li>• Generate needed reports from both your ledger and reporting currencies.</li> <li>• Close your accounting period in both your ledger and reporting currencies.</li> </ul>

## How Reporting Currencies Are Calculated

If you use reporting currencies at the journal or subledger level, when you create accounting, post journal entries, or translate balances, journals are posted in your reporting currency. General Ledger and Subledger Accounting automatically generate journals in your reporting currencies where the entered currency amounts are converted to the reporting currency amounts. Other factors used in the calculation of reporting currency balances are listed:

- **Manual Journals:** Enter a manual journal batch in your reporting currency at the journal or subledger level by using the Create Journals page. Select the journal or subledger level reporting currency from the ledger's list of values and continue in the same manner as entering any other manual journal.
- **Conversion Rounding:** Use the reporting currency functionality to round converted and accounted amounts using the same rounding rules used throughout your Oracle Fusion Applications. The reporting currency functionality considers several factors that are a part of the currencies predefined in your applications, including:
  - **Currency Precision:** Number of digits to the right of the decimal point used in currency transactions.
  - **Minimum Accountable Unit:** Smallest denomination used in the currency. This might not correspond to the precision.
- **Converted Journals:** Generate and post automatically, using the General Ledger Posting process, journals in your reporting currencies when you post the original journals in the source ledger for the following types of journals:
  - Manual journals
  - Periodic and allocation journals
  - Unposted journals from non-Oracle subledger applications
  - Unposted journals from any Oracle Fusion subledger that does not support reporting currency transfer and import
  - Optionally, revaluation journals
- **Unconverted Journals:** Rely on the subledger accounting functionality to converted and transfer Oracle Fusion subledger journals for both the original journal and the reporting currency journal to the General Ledger for import and posting. The reporting currency conversion for these journals is not performed by the General Ledger.
- **Approving Journals:** Use the journal approval feature to process reporting currency journals through your organization's approval hierarchy. You can enable journal approval functionality separately in your source ledger and reporting currencies.
- **Document Numbers:** Accept the default document numbers assigned by the General Ledger application to your journal when you enter a journal in your ledger. The converted journal in the reporting currency is assigned the same document number. However, if you enter a journal in the reporting currency, the document number assigned to the journal is determined by the reporting currency.
- **Sequential Numbering:** Enable sequential numbering if you want to maintain the same numbering in your reporting currency and source ledger for journals, other than those journals for Oracle Fusion subledgers. Do not create separate sequences for your reporting currencies. If you do, the sequence defined for the reporting currencies is used and can

cause document numbers not to be synchronized between the ledger and reporting currencies.

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**Note**

If the Sequential Numbering profile option is set to **Always Used** or **Partially Used** and you define an automatic document numbering sequence, General Ledger enters a document number automatically when you save your journal. If you use manual numbering, you can enter a unique document number.

- 
- **Revaluation:** Run periodically revaluation in your ledger and reporting currencies as necessary to satisfy the accounting regulations of the country in which your organization operates.
  - **Account Inquiries:** Perform inquiries in the reporting currency. Drill down to the journal detail that comprises the reporting currency balance. If the journal detail is a converted journal that was converted automatically when the original journal was posted in the source ledger, you can drill down further to see the source ledger currency journal amounts.

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**Note**

Be careful when changing amounts in a reporting currency, since the changes are not reflected in your source ledger. Making journal entry changes to a reporting currency makes it more difficult to reconcile your reporting currency to your source ledger. In general, enter or change your journals in your source ledger, and then allow posting to update the reporting currency.

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**Note**

If you use reporting currencies at the journal or subledger level, statistical journals are generated for your reporting currencies, but the journals are not affected by the currency conversion process.

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## Define Business Units: Manage Service Provider Relationships

### Shared Service Centers: Explained

Oracle Fusion Applications allows defining relationships between business units to outline which business unit provides services to the other business units.

#### Service Provider Model

In Oracle Fusion Applications V1.0, the service provider model centralizes only the procurement business function. Your business units that have the requisitioning business function enabled can define relationships with business units that have the procurement business function enabled. These service provider business units will process requisitions and negotiate supplier terms for their client business units.

This functionality is used to frame service level agreements and drive security. The definition of service provider relationships provides you with a clear record of how the operations of your business are centralized. For other centralized processing, business unit security is used (known in Oracle EBS as Multi-Org Access Control). This means that users who work in a shared service center have the ability to get access and process transactions on behalf of many business units.

## Shared Service Center: Points to Consider

Oracle Fusion applications supports shared service centers in two ways. First, with business unit security, which allows your shared service centers personnel to process transactions for other business units called clients. This was the foundation of Multi Org Access Control in the Oracle E-Business Suite.

Second, the service provider model expands on this capability to allow a business unit and its personnel in a shared service center to work on transactions of the client business units. It is possible to view the clients of a service provider business unit, and to view service providers of a client business unit.

Your shared service centers provide services to your client business units that can be part of other legal entities. In such cases, your cross charges and recoveries are in the form of receivables invoices, and not merely allocations within your general ledger, thereby providing internal controls and preventing inappropriate processing.

For example, in traditional local operations, an invoice of one business unit cannot be paid by a payment from another business unit. In contrast, in your shared service center environment, processes allowing one business unit to perform services for others, such as paying an invoice, are allowed and completed with the appropriate intercompany accounting. Shared service centers provide your users with access to the data of different business units and can comply with different local requirements.

### Security

The setup of business units provides you with a powerful security construct by creating relationships between the functions your users can perform and the data they can process. This security model is appropriate in a business environment where local business units are solely responsible for managing all aspects of the finance and administration functions.

In Oracle Fusion applications, the business functions your business unit performs are evident in the user interface for setting up business units. To accommodate shared services, use business unit security to expand the relationship between functions and data. A user can have access to many business units. This is the core of your shared service architecture.

For example, you take orders in many business units each representing different registered legal entities. Your orders are segregated by business unit. However, all of these orders are managed from a shared service order desk in an outsourcing environment by your users who have access to multiple business units.

## Benefits

In summary, large, medium, and small enterprises benefit from implementing shared service centers. Examples of functional areas where shared service centers are generally implemented include procurement, disbursement, collections, order management, and human resources. The advantages of deploying these shared service centers are the following:

- Reduce and consolidate the number of control points and variations in processes, mitigating the risk of error.
- Increase corporate compliance to local and international requirements, providing more efficient reporting.
- Implement standard business practices, ensuring consistency across the entire enterprise and conformity to corporate objectives.
- Establish global processes and accessibility to data, improving managerial reporting and analysis.
- Provide quick and efficient incorporation of new business units, decreasing startup costs.
- Establish the right balance of centralized and decentralized functions, improving decision making.
- Automate self-service processes, reducing administrative costs.
- Permit business units to concentrate on their core competencies, improving overall corporate profits.

## Service Provider Model: Explained

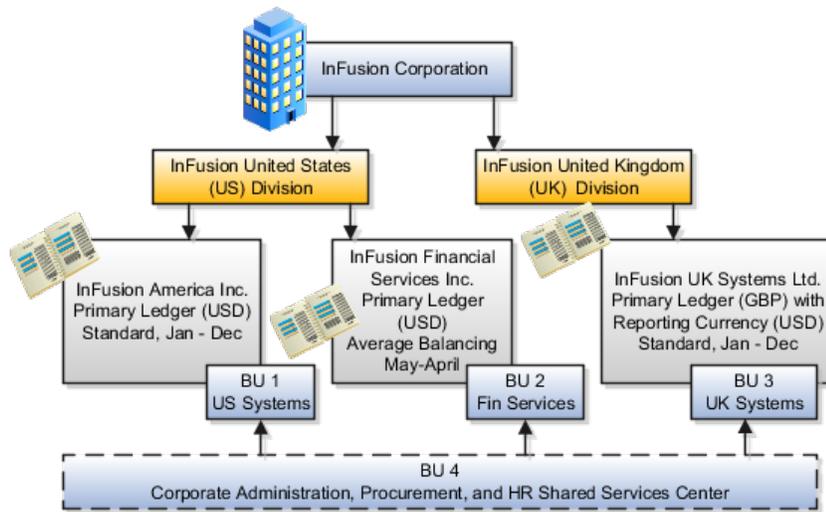
In Oracle Fusion applications, the service provider model defines relationships between business units for a specific business function, identifying one business in the relationship as a service provider of the business function, and the other business unit as its client.

### Procurement Example

The Oracle Fusion Procurement product family has taken advantage of the service provide model by defining outsourcing of the procurement business function. Define your business units with requisitioning and payables invoicing business functions as clients of your business unit with the procurement business function. Your business unit responsible for the procurement business function will take care of supplier negotiations, supplier site maintenance, and purchase order processing on behalf of your client business units. Subscribe your client business units to the supplier sites maintained by the service providers, using a new procurement feature for supplier site assignment.

In the InFusion example below, business unit four (BU4) serves as a service provider to the other three business units (BU1, BU2, and BU3.) BU4 provides the corporate administration, procurement, and human resources (HR) business

functions, thus providing cost savings and other benefits to the entire InFusion enterprise.



## Define Business Units: Specify Customer Contract Management Business Function Properties

### Customer Contracts Business Unit Setup: Explained

Using the **Specify Customer Contract Management Business Function Properties** task, available by navigating to Setup and Maintenance work area and searching on the task name, you can specify a wide variety of business function settings for customer contracts in a specific business unit. The selections you make for these business functions impact how Oracle Fusion Enterprise Contracts behaves during contract authoring.

Using the **Specify Customer Contract Management Business Function Properties** task, manage these business function properties:

- Enable related accounts
- Set currency conversion details
- Manage project billing options
- Set up the Contract Terms Library

The setup options available for the Contract Terms Library are applicable to both customer and supplier contracts, and are described in the business unit setup topic for the Contract Terms Library. That topic is available as a related link to this topic.

#### Enabling Related Customer Accounts

Contract authors can specify bill-to, ship-to, and other accounts for the parties in a contract. Enable the related customer accounts option if you want accounts previously specified as related to the contract party to be available for selection.

## Managing Currency Conversion Options

If your organization plans to transact project-related business in multiple currencies, then select the multicurrency option. This allows a contract author to override a contract's currency, which defaults from the ledger currency of the business unit. It also enables the contract author to specify currency conversion attributes to use when converting from the bill transaction currency to the contract currency and from the invoice currency to the ledger currency.

In the Bill Transaction Currency to Contract Currency region, enter currency conversion details that will normally be used, by all contracts owned by this business unit, to convert transaction amounts in the bill transaction currency to the contract currency. Newly created contracts contain the default currency conversion values, but you can override the values on any contract, if needed.

In the Invoice Currency to Ledger Currency region:

- Enter invoice transaction conversion details if the invoice and ledger currencies can be different.
- Enter revenue transaction conversion details if the revenue and ledger currencies can be different for as-incurred and rate-based revenue.

## Managing Project Billing Options

The options available for selection in the Project Billing region control the behavior of project invoicing and revenue recognition for contracts with project-based work.

Project billing can behave differently for external contracts (customer billing) or intercompany and interproject contracts (internal billing).

Set these options, which apply to all contracts:

- Select the **Transfer Revenue to General Ledger** option if you want to create revenue accounting events and entries, and transfer revenue journals to the general ledger. If this option is not selected, then revenue can still be generated, but will not be transferred to the general ledger.
- Indicate if a reason is required for credit memos that are applied to invoices.

There are two sets of the following options, one for customer billing and a second for internal billing:

- Select an invoice numbering method, either **Manual** or **Automatic**. The invoice numbering method is the method that Oracle Fusion Receivables uses to number its invoices, upon release of draft invoices from Project Billing.
  - If the invoice numbering method is **Manual**, then select an invoice number type, which sets the type of Receivables invoice numbers that are allowed. Valid values are **Alphanumeric** and **Numeric**.
  - If the invoice numbering method is **Automatic**, then enter the next invoice number to use when generating Receivables invoice numbers.

- Select the Receivables batch source to use when transferring invoices to Receivables.

Set this option only for customer billing:

- Indicate if you want contract authors to manually enter the Receivables transaction type on the customer contracts they create.

## Contract Terms Library Business Unit Setup: Explained

You can specify a wide variety of Contract Terms Library settings for either customer or supplier contracts within each business unit, by using either the **Specify Customer Contract Management Business Function Properties** or the **Specify Supplier Contract Management Business Function Properties** tasks. These tasks are available by navigating to the **Setup and Maintenance** work area and searching on the task name.

For the Contract Terms Library in each business unit, you can:

- Enable clause and template adoption.
- Set the clause numbering method.
- Enable the Contract Expert feature.
- Specify the layout for printed clauses and contract deviation reports.

### Enabling Clause Adoption

If you plan to use clause adoption in your implementation, then set up the following:

- Specify a global business unit

You must designate one of the business units in your organization as the global business unit by selecting the **Global Business Unit** option. This makes it possible for the other local business units to adopt and use approved content from that global business unit. If the **Global Business Unit** option is not available for the business unit you are setting up, this means that you already designated another business unit as global.

- Enable automatic adoption

If you are implementing the adoption feature, then you can have all the global clauses in the global business unit automatically approved and available for use in the local business by selecting the **Autoadopt Global Clauses** option. If you do not select this option, the employee designated as the Contract Terms Library Administrator must approve all global clauses before they can be adopted and used in the local business unit. This option is available only for local business units.

- Specify the administrator who approves clauses available for adoption

You must designate an employee as the Contract Terms Library administrator if you are using adoption. If you do not enable automatic adoption, then the administrator must adopt individual clauses or localize them for use in the local business unit. The administrator can also copy

over any contract terms templates created in the global business unit. The clauses and contract terms templates available for adoption are listed in the administrator's Terms Library work area.

### **Setting Clause Numbering Options**

You can set up automatic clause numbering for the clauses in the business unit by selecting **Automatic** in the **Clause Numbering** field and entering a Document Sequence Category you previously set up in the **Clause Sequence Category** field. If clause numbering is manual, contract terms library administrators must enter unique clause numbers each time they create a clause.

You can choose to display the clause number in front of the clause title in contracts by selecting the **Display Clause Number in Clause Title** option.

### **Enabling Contract Expert**

You must select the **Enable Contract Expert** option to be able to use the Contract Expert feature in a business unit. This setting takes precedence over enabling Contract Expert for individual contract terms templates.

### **Specifying the Printed Clause and Deviations Report Layouts**

For each business unit, you can specify the Oracle BI Publisher RTF file that serves as the layout for:

- The printed contract terms

Enter the RTF file you want used for formatting the printed clauses in the **Clause Layout Template** field.

- The contract deviations report

The RTF file you select as the **Deviations Layout Template** determines the appearance of the contract deviations report PDF. This PDF is attached to the approval notification sent to contract approvers.

## **Define Business Units: Specify Supplier Contract Management Business Function Properties**

### **Supplier Contracts Business Unit Setup: Explained**

Using the **Specify Supplier Contract Management Business Function Properties** task, available by selecting Setup and Maintenance from the Tools menu and searching on the task name, you can specify a variety of business function settings for supplier contracts in a specific business unit.

The selections you make for these business functions impact how the Contract Terms Library behaves during supplier contract authoring.

### **Managing Contract Terms Library Setup Options**

The setup options available for the Contract Terms Library are applicable to both customer and supplier contracts, and are described in the business unit setup

topic for the Contract Terms Library. That topic is available as a related link to this topic.

## Contract Terms Library Business Unit Setup: Explained

You can specify a wide variety of Contract Terms Library settings for either customer or supplier contracts within each business unit, by using either the **Specify Customer Contract Management Business Function Properties** or the **Specify Supplier Contract Management Business Function Properties** tasks. These tasks are available by navigating to the **Setup and Maintenance** work area and searching on the task name.

For the Contract Terms Library in each business unit, you can:

- Enable clause and template adoption.
- Set the clause numbering method.
- Enable the Contract Expert feature.
- Specify the layout for printed clauses and contract deviation reports.

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If you plan to use clause adoption in your implementation, then set up the following:

- Specify a global business unit

You must designate one of the business units in your organization as the global business unit by selecting the **Global Business Unit** option. This makes it possible for the other local business units to adopt and use approved content from that global business unit. If the **Global Business Unit** option is not available for the business unit you are setting up, this means that you already designated another business unit as global.

- Enable automatic adoption

If you are implementing the adoption feature, then you can have all the global clauses in the global business unit automatically approved and available for use in the local business by selecting the **Autoadopt Global Clauses** option. If you do not select this option, the employee designated as the Contract Terms Library Administrator must approve all global clauses before they can be adopted and used in the local business unit. This option is available only for local business units.

- Specify the administrator who approves clauses available for adoption

You must designate an employee as the Contract Terms Library administrator if you are using adoption. If you do not enable automatic adoption, then the administrator must adopt individual clauses or localize them for use in the local business unit. The administrator can also copy over any contract terms templates created in the global business unit. The clauses and contract terms templates available for adoption are listed in the administrator's Terms Library work area.

## Setting Clause Numbering Options

You can set up automatic clause numbering for the clauses in the business unit by selecting **Automatic** in the **Clause Numbering** field and entering a Document Sequence Category you previously set up in the **Clause Sequence Category** field. If clause numbering is manual, contract terms library administrators must enter unique clause numbers each time they create a clause.

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- The contract deviations report

The RTF file you select as the **Deviations Layout Template** determines the appearance of the contract deviations report PDF. This PDF is attached to the approval notification sent to contract approvers.

# Define Business Units: Assign Business Unit Business Function

## Business Functions: Explained

A business unit can perform many business functions in Oracle Fusion Applications. Prior to Oracle Fusion Applications, operating units in Oracle E-Business Suite were assumed to perform all business functions, while in Oracle PeopleSoft, each business unit had one specific business function. Oracle Fusion Applications blends these two models and allows defining business units with one or many business functions.

### Business Functions

A business function represents a business process, or an activity that can be performed by people working within a business unit and describes how a business unit is used. The following business functions exist in Oracle Fusion applications:

- Billing and revenue management
- Collections management

- Customer contract management
- Customer payments
- Expense management
- Incentive compensation
- Marketing
- Materials management
- Inventory management
- Order fulfillment orchestration
- Payables invoicing
- Payables payments
- Procurement
- Procurement contract management
- Project accounting
- Receiving
- Requisitioning
- Sales

Although there is no relationship implemented in Oracle Fusion Applications, a business function logically indicates a presence of a department in the business unit with people performing tasks associated with these business functions. A business unit can have many departments performing various business functions. Optionally, you can define a hierarchy of divisions, business units, and departments as a tree over HCM organization units to represent your enterprise structure.

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**Note**

This hierarchy definition is not required in the setup of your applications, but is a recommended best practice.

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Your enterprise procedures can require a manager of a business unit to have responsibility for their profit and loss statement. However, there will be cases where a business unit is performing only general and administrative functions, in which case your manager's financial goals are limited to cost containment or recovering of service costs. For example, if a shared service center at the corporate office provides services for more commercially-oriented business units, it does not show a profit and therefore, only tracks its costs.

In other cases, where your managers have a responsibility for the assets of the business unit, a balance sheet can be produced. The recommended best practice to produce a balance sheet, is to setup the business unit as a balancing segment in the chart of accounts. The business unit balancing segment can roll up to divisions or other entities to represent your enterprise structure.

When a business function produces financial transactions, a business unit must be assigned to a primary ledger, and a default legal entity. Each business unit can

post transactions to a single primary ledger, but it can process transactions for many legal entities.

The following business functions generate financial transactions and will require a primary ledger and a default legal entity:

- Billing and revenue management
- Collections management
- Customer payments
- Expense management
- Materials management
- Payables invoicing
- Project accounting
- Receiving
- Requisitioning

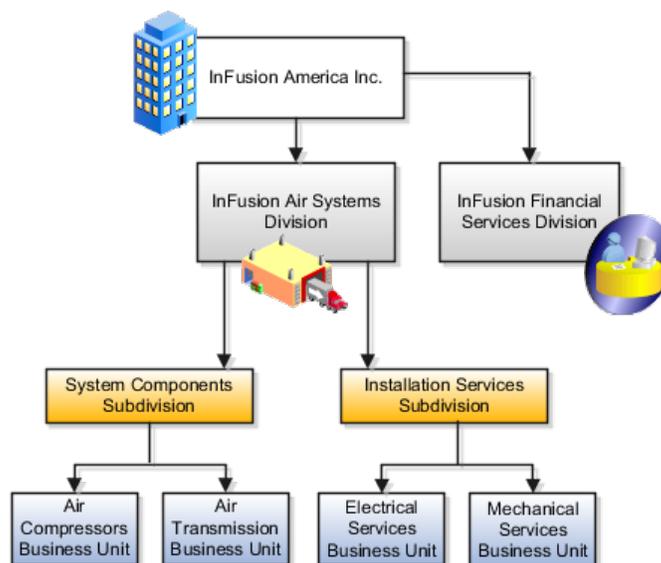
### Business Unit Hierarchy: Example

For example, your InFusion America Company provides:

- Air quality monitoring systems through your division InFusion Air Systems
- Customer financing through your division InFusion Financial Services

The InFusion Air Systems division further segments your business into the System Components and Installation Services subdivisions. Your subdivisions are divided by business units:

- System Components by products: Air Compressors and Air Transmission
- Installation Services by services: Electrical and Mechanical



Oracle Fusion applications facilitates independent balance sheet rollups for legal and management reporting by offering up to three balancing segments. Hierarchies created using the management segment can provide the divisional results. For example, it is possible to define management segment values to correspond to business units, and arrange them in a hierarchy where the higher nodes correspond to divisions and subdivisions, as in the Infusion US Division example above.

## Define Business Units: Manage Business Units

### Business Units: Explained

A business unit is a unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy. A business unit can process transactions on behalf of many legal entities. Normally, it will have a manager, strategic objectives, a level of autonomy, and responsibility for its profit and loss. Roll business units up into divisions if you structure your chart of accounts with this type of hierarchy. In Oracle Fusion Applications, you assign your business units to one primary ledger. For example, if a business unit is processing payables invoices they will need to post to a particular ledger. This assignment is mandatory for your business units with business functions that produce financial transactions.

In Oracle Fusion Applications, use business unit as a securing mechanism for transactions. For example, if you run your export business separately from your domestic sales business, secure the export business data to prevent access by the domestic sales employees. To accomplish this security, set up the export business and domestic sales business as two separate business units.

The Oracle Fusion Applications business unit model:

- Allows for flexible implementation
- Provides a consistent entity for controlling and reporting on transactions
- Anchors the sharing of sets of reference data across applications

Business units process transactions using reference data sets that reflect your business rules and policies and can differ from country to country. With Oracle Fusion Application functionality, you can choose to share reference data, such as payment terms and transaction types, across business units, or you can choose to have each business unit manage its own set depending on the level at which you wish to enforce common policies.

In countries where gapless and chronological sequencing of documents is required for subledger transactions, define your business units in alignment with your ledger definition, because the uniqueness of sequencing is only ensured within a ledger. In these cases, define a single ledger and assign one legal entity and business unit.

In summary, use business units in the following ways:

- Management reporting
- Processing of transactions

- Security of transactional data
- Reference data definition and sharing

### **Brief Overview of Business Unit Security**

Business units are used by a number of Oracle Fusion Applications to implement data security. You assign data roles to your users to give them access to data in business units and permit them to perform specific functions on this data. When a business function is enabled for a business unit, the application can trigger the creation of data roles for this business unit based on the business function's related job roles.

For example, if a payables invoicing business function is enabled, then it is clear that there are employees in this business unit that perform the function of payables invoicing, and need access to the payables invoicing functionality. Therefore, based on the correspondence between the business function and the job roles, appropriate data roles are generated automatically. Use Human Capital Management (HCM) security profiles to administer security for employees in business units.

## **Define Workforce Structures: Manage Enterprise HCM Information**

### **Managing Enterprise Information for Non-Oracle Fusion HCM Users: Explained**

The Manage Enterprise HCM Information task includes default settings for your enterprise such as the employment model, worker number generation, and so on. If you are not implementing Oracle Fusion Human Capital Management (HCM), then the only action you may need to perform using this task is to change the enterprise name, if necessary. The other settings are HCM-specific and are not relevant outside of Oracle Fusion HCM.

## **Define Workforce Structures: Manage Locations**

### **Locations: Explained**

A location identifies physical addresses of a workforce structure, such as a department or a job. You can also create locations to enter the addresses of external organizations that you want to maintain, such as employment agencies, tax authorities, and insurance or benefits carriers.

The locations that you create exist as separate structures that you can use for reporting purposes, and also in rules that determine employee eligibility for various types of compensation and benefits. You enter information about a location only once. Subsequently, when you set up other workforce structures you select the location from a list.

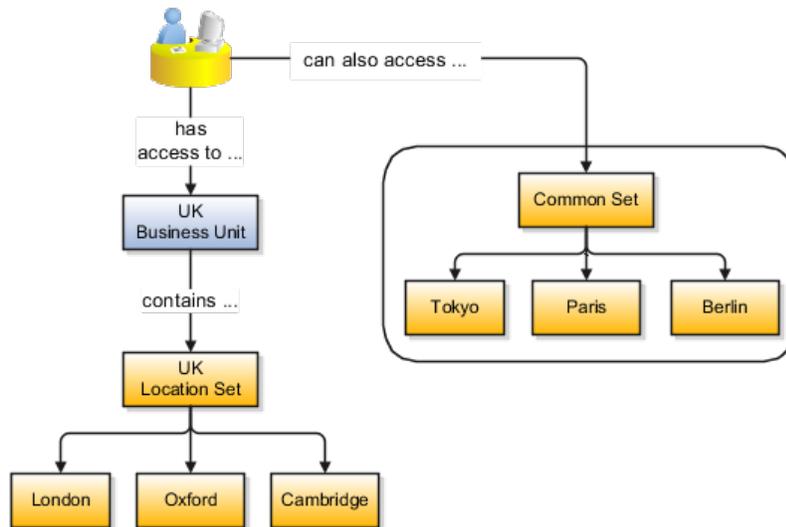
#### **Location Sets**

When you create a location, you must associate it with a set. Only those users who have access to the set's business unit can access the location set and other

associated workforce structure sets, such as those that contain departments and jobs.

You can also associate the location to the common set so that users across your enterprise can access the location irrespective of their business unit. When users search for locations, they can see the locations that they have access to along with the locations in the common set.

The following figure shows how locations sets restrict access to users.



### Creating Multiple Locations Simultaneously

If you have a list of locations already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, then add your location information to the spreadsheet, and then upload directly to your enterprise configuration. You can upload the spreadsheet multiple times to accommodate revisions.

## Define Workforce Structures: FAQs for Manage Locations

### Why can't I see my location in the search results?

You can search for approved locations only. Also, if you created a location in Oracle Fusion Trading Community Model, then you can't access that location from Oracle Fusion Global Human Resources. For use in Oracle Fusion HCM, you must recreate the location from the Manage Locations page.

### How can I associate a location with an inventory organization?

From the Manage Locations page in Oracle Fusion Global Human Resources.

To appear on the Create or Edit Location pages, your inventory organization must be effective on today's date and must exist in the location set that you selected.

### **What happens if I select an inventory organization when I'm creating or editing a location?**

The location is available for selection in purchase documents of that inventory organization in Oracle Fusion Inventory Management. If you don't select an inventory organization, then the location is available in purchase documents across all inventory organizations.

### **What happens if I select a geographic hierarchy node when I'm creating or editing a location?**

The calendar events that were created for the geographical node start to apply for the location and may impact the availability of worker assignments at that location. The geographical hierarchy nodes available for selection on the Locations page display from a predefined geographic hierarchy.

### **What happens if I inactivate a location?**

Starting from the effective date that you entered, you can no longer associate the location with other workforce structures, assignments, or applications. If the location is already in use, it will continue to be available to the components that currently use it.

## **Define Workforce Structures: Manage Divisions**

### **Division: Explained**

Managing multiple businesses requires that you segregate them by their strategic objectives and measure their results. Responsibility to reach objectives can be delegated along the management structure. Although related to your legal structure, the business organizational hierarchies do not need to reflect directly the legal structure of the enterprise. The management entities and structure can include divisions and subdivisions, lines of business, and other strategic business units, and include their own revenue and cost centers. These organizations can be included in many alternative hierarchies and used for reporting, as long as they have representation in the chart of accounts.

#### **Divisions**

A division refers to a business oriented subdivision within an enterprise, in which each division organizes itself differently to deliver products and services or address different markets. A division can operate in one or more countries, and can be comprised of many companies or parts of different companies that are represented by business units.

A division is a profit center or grouping of profit and cost centers, where the division manager is responsible for attaining business goals including profit goals. A division can be responsible for a share of the company's existing product lines or for a separate business. Managers of divisions may also have return on investment goals requiring tracking of the assets and liabilities of the division. The division manager reports to a top corporate executive.

By definition a division can be represented in the chart of accounts. Companies may choose to represent product lines, brands, or geographies as their divisions: their choice represents the primary organizing principle of the enterprise. This may coincide with the management segment used in segment reporting.

Oracle Fusion Applications supports a qualified management segment and recommends that you use this segment to represent your hierarchy of business units and divisions. If managers of divisions have return on investment goals, make the management segment a balancing segment. Oracle Fusion applications allows up to three balancing segments. The values of the management segment can be comprised of business units that roll up in a hierarchy to report by division.

Historically, divisions were implemented as a node in a hierarchy of segment values. For example, Oracle E-Business Suite has only one balancing segment, and often the division and legal entity are combined into a single segment where each value stands for both division and legal entity.

### **Use of Divisions in Oracle Fusion Human Capital Management (HCM)**

Divisions are used in HCM to define the management organization hierarchy, using the generic organization hierarchy. This hierarchy can be used to create organization based security profiles.

## **Adding a New Division After Acquiring a Company: Example**

This example shows how to restructure your enterprise after acquiring a new division.

### **Scenario**

You are part of a senior management team at InFusion Corporation. InFusion is a global company with organizations in the United States (US), the United Kingdom (UK), France, China, Saudi Arabia, and the United Arab Emirates (UAE). Its main area of business is in the high tech industry, and it has just acquired a new company. You must analyze their current enterprise structure and determine what new organizations you need to create to accommodate the new company.

### **Details of the Acquired Company**

The acquired company is a financial services business based in Germany. Because the financial services business differs significantly from the high tech business, you want to keep the financial services company as a separate business with all the costs and reporting rolling up to the financial services division.

### **Analysis**

The following table summarizes the key decisions that you must consider when determining what new organizations to set up and how to structure the enterprise.

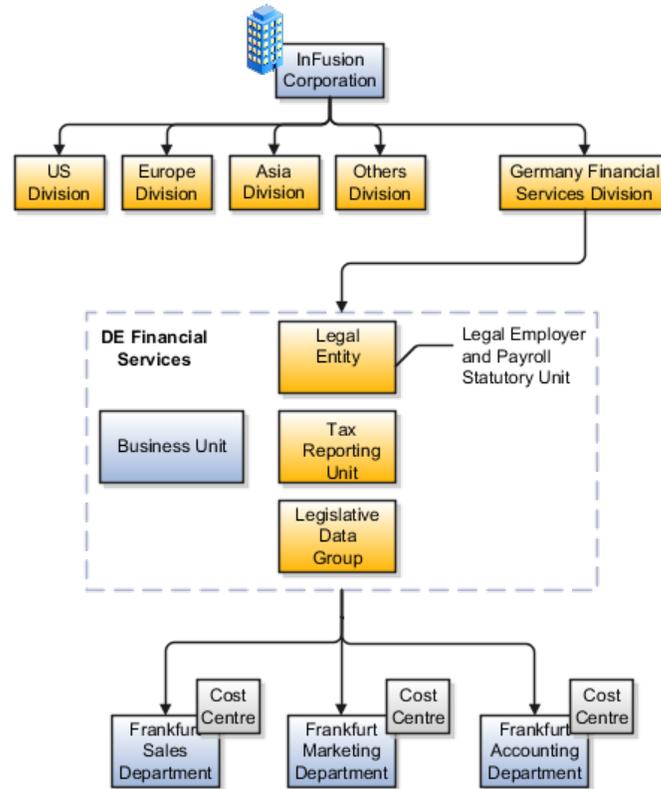
Decision to Consider	In This Example
Create location?	The financial services company is based in Frankfurt as are the departments, so you need to create only one location.

Create separate division?	Yes. Although the new division will exist within the current enterprise structure, you want to keep the financial services company as a separate line of business. Creating a separate division means you can manage the costs and reporting separately from the InFusion Corporation. It also means you do not have to modify any existing organizations in the enterprise setup.
Create business unit?	Yes. The financial services business requires you to create several jobs that do not exist in your high tech business. You can segregate the jobs that are specific to financial services in a new business unit.
How many departments?	The financial services company currently has three departments for sales, accounting, and marketing. As you have no plans to downsize or change the company, you can create three departments to reflect this structure.
How many cost centers?	Although you can have more than one cost center tracking the costs of a department, you decide to create one cost center for each department to track costs.
How many legal entities?	<p>Define a legal entity for each registered company or other entity recognized in law for which you want to record assets, liabilities, and income, pay transaction taxes, or perform intercompany trading. In this case, you need only one legal entity.</p> <p>You must define the legal entity as a legal employer and payroll statutory unit. As the new division operates in Germany only, you can configure the legal entity to suit Germany legal and statutory requirements.</p> <hr/> <p><b>Note</b></p> <p>When you identify the legal entity as a payroll statutory unit, the application transfers the legal reporting unit that is associated with that legal entity to Oracle Fusion HCM as a tax reporting unit.</p> <hr/>
Create legislative data group?	Yes. Because you currently do not employ or pay people in Germany, you must create one legislative data group to run payroll for the workers in Germany.

Based on the analysis, you must create the following:

- One new division
- One new location
- Three new departments
- Three new cost centers
- One new legal entity
- One new legislative data group

The following figure illustrates the structure of InFusion Corporation after adding the new division and the other organizations.



## Define Workforce Structures: Manage Departments

### Cost Centers and Departments: Explained

A cost center represents the smallest segment of an organization for which costs are collected and reported. A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager and has one or more workers assigned to it.

The following two components need to be considered in designing your enterprise structure:

- Cost centers
- Departments

#### Cost Centers

A cost center also represents the destination or function of an expense as opposed to the nature of the expense which is represented by the natural account. For example, a sales cost center indicates that the expense goes to the sales department.

A cost center is generally attached to a single legal entity. To identify the cost centers within a chart of accounts structure use one of these two methods:

- Assign a cost center value in the value set for each cost center. For example, assign cost center values of PL04 and G3J1 to your manufacturing teams in the US and India. These unique cost center values allow easy aggregation of cost centers in hierarchies (trees) even if the cost centers are in different ledgers. However, this approach will require defining more cost center values.
- Assign a balancing segment value with a standardized cost center value to create a combination of segment values to represent the cost center. For example, assign the balancing segment values of 001 and 013 with cost center PL04 to represent your manufacturing teams in the US and India. This creates 001-PL04 and 013-PL04 as the cost center reporting values.

The cost center value of PL04 has a consistent meaning. This method requires fewer cost center values to be defined. However, it prevents construction of cost center hierarchies using trees where only cost center values are used to report results for a single legal entity. You must specify a balancing segment value in combination with the cost center values to report on a single legal entity.

## Departments

A department is an organization with one or more operational objectives or responsibilities that exist independently of its manager. For example, although the manager may change, the objectives do not change. Departments have one or more workers assigned to them.

A manager of a department is typically responsible for:

- Controlling costs within their budget
- Tracking assets used by their department
- Managing employees, their assignments, and compensation

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### Note

The manager of a sales department may also be responsible for meeting the revenue targets.

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The financial performance of departments is generally tracked through one or more cost centers. In Oracle Fusion Applications, departments are defined and classified as Department organizations. Oracle Fusion Human Capital Management (HCM) assigns workers to departments, and tracks the headcount at the departmental level.

The granularity of cost centers and their relationship to departments varies across implementations. Cost center and department configuration may be unrelated, identical, or consist of many cost centers tracking the costs of one department.

## Department Classifications: Points to Consider

A department can be classified as a project organization, sales and marketing organization, or cost organization.

Oracle Fusion Human Capital Management (HCM) uses trees to model organization hierarchies. It provides seeded tree structures for department

and other organizational hierarchies that can include organizations with any classification.

## Project Organization

Classify departments as a project owning organization to enable associating them with projects or tasks. The project association is one of the key drivers for project access security.

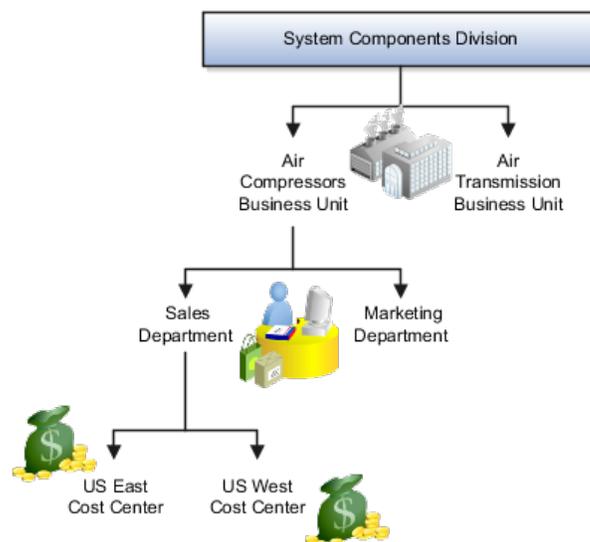
In addition, you must classify departments as project expenditure organizations to enable associating them to project expenditure items. Both project owning organizations and project expenditure organizations can be used by Oracle Fusion Subledger Accounting to derive accounts for posting Oracle Fusion Projects accounting entries to Oracle Fusion General Ledger.

## Sales and Marketing Organization

In Oracle Fusion Customer Relationship Management (CRM), you can define sales and marketing organizations. Sales organization hierarchies are used to report and forecast sales results. Sales people are defined as resources assigned to these organizations.

In some enterprises, the HCM departments and hierarchies correspond to sales organizations and hierarchies. It is important to examine the decision on how to model sales hierarchies in relationship to department hierarchies when implementing customer relationship management to eliminate any possible redundancy in the definition of the organizations.

The following figure illustrates a management hierarchy, in which the System Components Division tracks its expenses in two cost centers, Air Compressors and Air Transmission. At the department level, two organizations with a classification of Department are defined, the Marketing Department and Sales Department. These two departments can be also identified as a Resource Organizations, which will allow assigning resources, such as sales people, and other CRM specific information to them. Each department is represented in the chart of accounts by more than one cost center, allowing for granular as well as hierarchical reporting.



## Cost Organization

Oracle Fusion Costing uses a cost organization to represent a single physical inventory facility or group of inventory storage centers, for example, inventory organizations. This cost organization can roll up to a manager with responsibility for the cost center in the financial reports.

A cost organization can represent a costing department. Consider this relationship when determining the setup of departments in HCM. There are no system dependencies requiring these two entities, cost organization and costing department, be set up in the same way.

## Define Workforce Structures: FAQs for Manage Job Families

### What's the difference between a job set and a job family?

A job family is a group of jobs that have different but related functions, qualifications, and titles. They are beneficial for reporting. You can define competencies for job families by associating them with model profiles.

A job set is an organizational partition of jobs. For example, a job set can be global and include jobs for use in all business units, or it can be restricted to jobs for a specific country or line of business. When you select a job, for a position or an assignment, the available jobs are those in the set associated with the business unit in which you are working, and also those in the Common set.

## Define Workforce Structures: Manage Job

### Jobs: Explained

As part of your initial implementation, you specify whether to use jobs and positions, or only jobs. Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

#### Basic Details

Basic details for a job include an effective start date, a job set, a name, and a code.

A job code must be unique within a set. Therefore, you can create a job with the code DEV01 in the US set and another job with the same code in the UK set. However, if you create a job with the code DEV01 in the Common set, then you cannot create a job with the same code in any other set.

#### Benchmark Information

You can identify a job as being a benchmark job. A benchmark job represents other jobs in reports and salary surveys. You can also select the benchmark for jobs. Benchmark details are for informational purposes only. A progression job is the next job in a career ladder.

#### Progression Information

Progression jobs enable you to create a hierarchy of jobs and are used to provide the list of values for the Job field in the Promote Worker and Transfer Worker tasks. The list of values includes the next three jobs in the progression job hierarchy. For example, assume that you create a job called Junior Developer and select Developer as the progression job. In the Developer job, you select Senior

Developer as the progression job. When you promote a junior developer, the list of values for the new job will include Developer and Senior Developer. You can select one of these values, or select another one.

### Jobs and Grades

You can assign grades that are valid for each job. If you are using positions, then the grades that you specify for the job become the default grades for the position.

### Evaluation Criteria

You can define evaluation criteria for a job, including the evaluation system, a date, and the unit of measure for the system. One predefined evaluation system is available, and that is the Hay system. An additional value of Custom is included in the list of values for the Evaluation System field, but you must add your own criteria and values for this system.

### Uploading Jobs Using a Spreadsheet

If you have a list of jobs already defined for your enterprise, you can upload them from a spreadsheet. To use this option, you first download a spreadsheet template, then add your job information to the spreadsheet, and then upload directly to your enterprise configuration. You can upload the spreadsheet multiple times to accommodate revisions.

## Jobs: Example

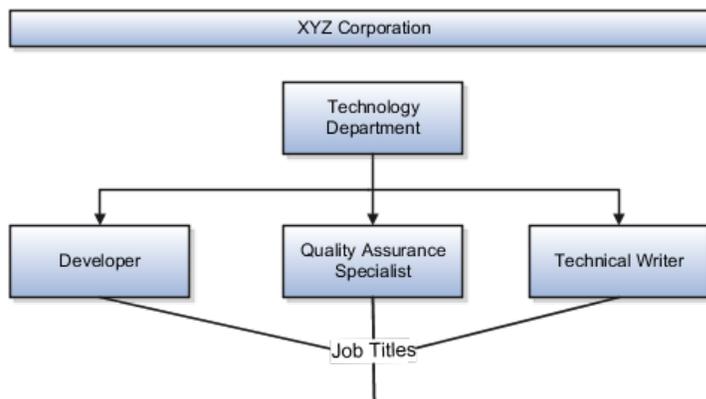
Jobs are typically used without positions by service industries where flexibility and organizational change are key features.

### Software Industry

For example, XYZ Corporation has a director over the departments for developers, quality assurance, and technical writers. Recently, three developers have left the company. The director decides to redirect the head count to other areas. Instead of hiring all three back into development, one person is hired to each department, quality assurance, and technical writing.

In software industries, the organization is fluid. Using jobs gives an enterprise the flexibility to determine where to use head count, because the job only exists through the person performing it. In this example, when the three developers leave XYZ Corporation, their jobs no longer exist, therefore the corporation has the flexibility to move the headcount to other areas.

This figure illustrates the software industry job setup.



# Define Workforce Structures: Manage Person Search Relevance Profile Option Values

## Search Relevance Profile Options: Explained

The strength of the relationship between the person performing a gallery search and each person whose assignment appears in the search results can determine the order of the results: the stronger the relationship, the closer to the top of the results an assignment appears. The search relevance profile options control how the strength of the relationship between the searcher and the search result is calculated.

### Weighting Profile Options

Using the following profile options, you can change the weighting applied to the relevant factors.

Profile Option	Description
HR: Organization Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the organization hierarchy proximity factor.
HR: Position Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the position hierarchy proximity factor.
HR: Manager Hierarchy Weight	Specifies the weighting applied to the relationship strength value for the manager hierarchy proximity factor.
HR: Location Proximity Weight	Specifies the weighting applied to the relationship strength value for the location proximity factor.
HR: Selection History Weight	Specifies the weighting applied to the relationship strength value for the selection history factor.
HR: Social Network Weight	Specifies the weighting applied to the relationship strength value for the social network factor.

The default value of each weighting profile option is 0.5. To increase the relevance of a factor relative to other factors, you increase its weighting; to decrease its relevance, you reduce its weighting.

### HR: Selection History Timeout

The number of times the searcher selects a person's assignment from the search results during a specified period, which is 7 days by default, is recorded automatically. You can specify this period for the enterprise on the HR: Selection History Timeout profile option.

### HR: Maximum Hierarchy Proximity

When the searcher's primary assignment is in the same organization, position, or manager hierarchy as a person's assignment, the strength of the relationship depends on their proximity to each other in the hierarchy. The maximum number of hierarchy boundaries to include in the calculation is 4 by default. You

can set this value for the enterprise on the HR: Maximum Hierarchy Proximity profile option.

### **HR: Relationship Priority Factor**

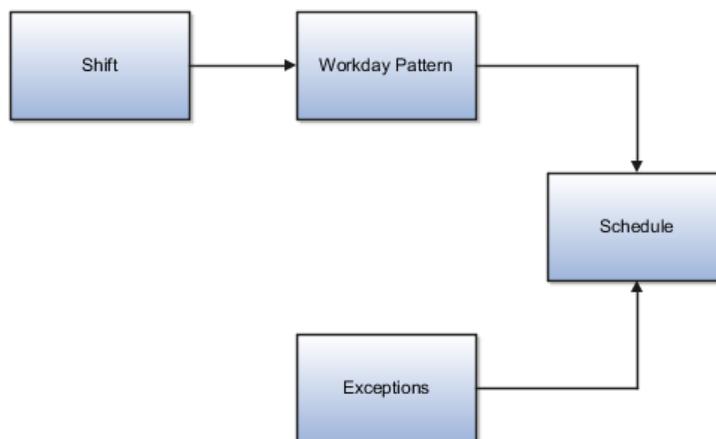
The searcher can specify a rating for a search result, and each rating is associated with a multiplying factor. On this profile option, you can specify the highest possible multiplying factor that can be applied to a search result. By default, the multiplying factor is 2. If you increase its value, you increase the significance of the searcher's own ratings relative to other factors.

## **Define Facilities: Manage Facility Shifts, Workday Patterns, and Schedules**

### **Schedule Components: How They Fit Together**

Schedules are comprised of workday patterns and exceptions. Workday patterns are comprised of shifts. You can also create exceptions, nonworking days, to the schedules.

Begin by creating shifts and then assigning those shifts to workday patterns. Next, create a schedule that is a collection of workday patterns and any exception dates.



## Shift

A shift is a period of time, typically expressed in hours, and it can be defined by a start time and an end time, or a duration. A shift can be for a work period or a off period. You can create time, duration, and elapsed shifts.

## Workday Pattern

A workday pattern is a collection of shifts for a specific number of days. You can create time, duration, and elapsed workday patterns.

## Exception

An exception is a record of a date that overrides the availability of a resource to which a schedule has been assigned. For example, a resource is assigned a schedule that includes December 25 as a working day. An exception can be created for December 25 and applied to that schedule to override resource availability for that date. Exceptions can also be for a date time period such as 9 a.m. to 11 a.m. on December 25th.

## Schedule

A schedule is defined by a start date, an end date, and a sequence of workday patterns to be followed between those dates. A schedule can also contain exception dates that override the availability of resources to which the schedule is assigned. Quarter types such as 4-4-5, 4-5-4 are supported.

# Managing Shifts: Examples

A shift is a period of time, typically expressed in hours, that is used to build workday patterns. Workday patterns are used to build schedules. There are multiple types of shifts you can create. The following scenarios illustrate each type.

## Managing Time Shifts

Next month you are adding a second shift for your manufacturing operations. This new shift will start right after your regular first shift. You can create a time shift that starts at 4:00 p.m. and ends at 12:00 a.m. There are restrictions in updating existing shifts and patterns. Shifts and patterns cannot be updated if the change affects a schedule, that is they are associated to a schedule. If a shift is created but not assigned to a pattern (or assigned to a pattern but the pattern is not assigned to a schedule) it can be updated. If a pattern is created and not assigned to a schedule it can be updated.

## Managing Time Shifts with Punch Details

Your division has decided that the employees in the office must clock in and out for lunch starting next week. All employees will take the same lunch hour. Add punch shift details to the existing shift so that employees punch in at 8:00 a.m.; they punch out for lunch from 11:30 a.m. to 12:30 p.m.; they punch back in at 12:30 p.m.; and they punch out for the day at 5:00 p.m.

## Managing Time Shifts with Flexible Details

Jorge Sanchez is a contractor who is starting work in your department next week. His hours will be flexible, so you need to create a new time shift with flexible details that he can use to record his time. He will have a flexible start time from 7:00 a.m. to 9:00 a.m. and a flexible end time from 4:00 p.m. to 6:00 p.m. His core work hours will be from 9:00 a.m. to 4:00 p.m.

## Managing Duration Shifts

One of the divisions in your organization does not use fixed start and end times for its daily shifts; the division only records the total duration of the shift and indicates if resources are available or not during that time. All of the employees in the division are available for 24 hours straight, and then they are not available for the next 24 hours. You should create a duration shift that indicates that resources are available for 24 hours, and create a second duration shift that indicates that resources are not available for 24 hours.

## Managing Elapsed Shifts

The employees in the Human Resources department all work 8 hours a day, but the start and end times vary by employee. Some employees start at early as 6:00 a.m., while others don't start until 9:00 a.m. Create an elapsed shift with a duration of 8 hours, where all employees are assumed to be available for the number of hours in the shift at any time during the day.

# Managing Workday Patterns: Examples

A workday pattern is a collection of shifts for a specific number of days. There are multiple types of workday patterns you can create. The following scenarios illustrate each type.

## Managing Time Workday Patterns

Your department works a Monday through Friday workweek with 8 hour shifts each day. Time patterns always have time shifts. That is, the shift will have start time and end time. You can create a time workday pattern with a length of 7 days and details of an 8 hour time shift for days 1 through 5. Days 6 and 7 are considered nonworking days.

## Managing Duration Workday Patterns

A new group of employees starts next month, and each employee will work a schedule where he or she is available for 10 hours, and then not available for the next 16 hours, and then available for 10 hours again, and so on. This pattern starts on midnight of the first day of the next month. Create a duration workday pattern with a 10-hour available duration shift, followed by a 16-hour not available duration shift. Do not specify the pattern length or start and end days, and the pattern will repeat for the length of the schedule to which it is associated.

## Managing Elapsed Workday Patterns

In the summer, several divisions in your organization work only 4 hours on Fridays. They work extended hours on Wednesdays and Thursdays to cover

the 4 hours they will not work on Fridays. Create an elapsed workday pattern with a length of 7 days. Days 1 and 2 will have an 8-hour shift assigned, while days 3 and 4 will have a 10-hour shift assigned. Finally, day 5 will have a 4-hour shift assigned. As in the time workday pattern, days 6 and 7 are considered nonworking days.

## Define Facilities: Manage Inventory Organizations

### Inventory Organizations: Explained

An inventory organization is a logical or physical entity in the enterprise that is used to store definitions of items or store and transact items.

You select the following usages in the inventory organization's properties:

- Item management
- Item and inventory management

#### Item Management

Inventory organizations used for item management, which are the same as item organizations, store only definitions of items. Use inventory organizations for item management when the storage or movement of inventory does not need to be physically or financially tracked. For example, in a retail implementation you can create an inventory organization for item management to store the names of items that are listed by and sold through each retail outlet, while a different system tracks physical inventory and transactions. If it is necessary in the future, you can change an inventory organization's usage from item management to item and inventory management in the inventory organization's properties.

#### Item and Inventory Management

Inventory organizations used for item and inventory management store and transact items, in addition to item definitions. An inventory organization used for item and inventory management is associated with one business unit, one legal entity, and one primary ledger. Use inventory organizations for item and inventory management when the storage or movement of inventory needs to be physically and financially tracked. Inventory organizations used for item and inventory management can represent facilities such as manufacturing centers, warehouses, or distribution centers. You cannot change an inventory organization's use from item and inventory management to item management.

### Inventory Organization: Critical Choices

In Oracle Fusion, storage facilities, warehouses, and distribution centers are implemented as inventory organizations.

Inventory organizations are:

- Managed by a business unit, with the materials management business function enabled.

- Mapped to a legal entity and a primary ledger.

There are two types of inventory organizations:

- Manufacturing facilities
- Storage facilities

Storage and manufacturing facilities are related to other organizational entities through a business unit that stores, manufactures, and distributes goods through many factories, warehouses, and distribution centers. The material parameters are set for both the facilities, enabling movement of material in the organization. This business unit has the business function of Materials Management enabled. Oracle Fusion Applications allow many inventory organizations to be assigned to one business unit.

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### Note

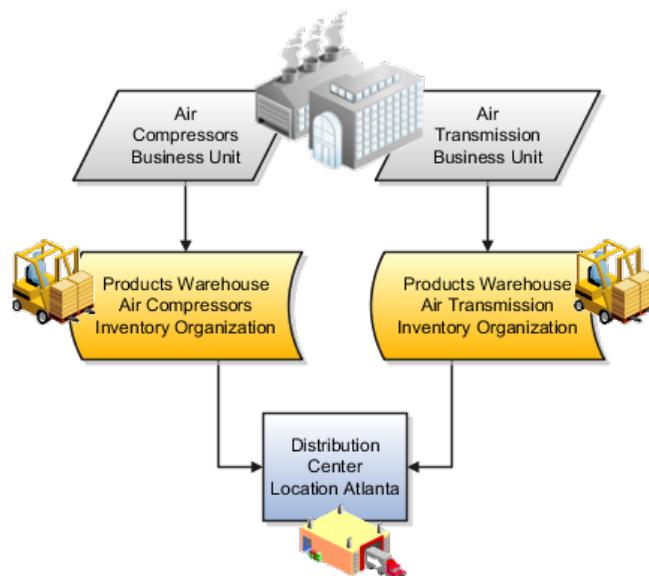
Currently, Oracle Fusion Applications do not include manufacturing capabilities, so setup your manufacturing facilities outside of Oracle Fusion applications.

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### Distribution Center as an Inventory Organization

A distribution center can store inventory that is the responsibility of different business units. In this situation, assign an inventory organization to each business unit as a representation of the inventory in the distribution center. The multiple inventory organizations representing the inventory are defined with the same location to show that they are a part of the same distribution center.

In the following figure the two business units, Air Compressors and Air Transmission, share one distribution center in Atlanta. The two inventory organizations, Air Compressors and Air Transmission represent the inventory for each business unit in the Atlanta distribution center and are both assigned the Atlanta location.

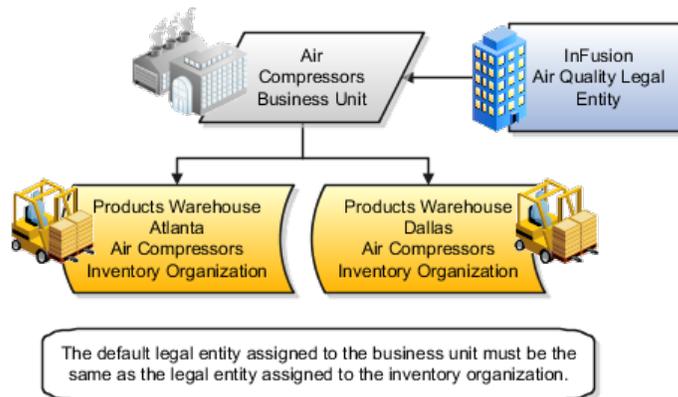


## Legal Entities Own Inventory Organizations

A legal entity owns the inventory located in a storage or manufacturing facility. This ownership is assigned through the relationship of the inventory organization representing the inventory and the legal entity assigned to the inventory organization. The legal entity assigned to the inventory organization shares the same primary ledger as the inventory organization's business unit.

The inventory is tracked in the inventory organization owned by the legal entity of which the business unit is part. All transactions are accounted for in the primary ledger of the legal entity that owns the inventory.

The figure below illustrates the inventory owned by InFusion Air Quality legal entity. The InFusion Air Quality legal entity is associated with the Air Compressors business unit, which is associated with the two Air Compressors inventory organizations. Therefore, InFusion Air Quality legal entity owns the entire inventory in both the Dallas and Atlanta locations.



## Facility Schedules Are Associated with Inventory Organizations

A prerequisite to defining an inventory organization is to define a facility schedule. Oracle Fusion Applications allow you to associate an inventory organization with a schedule.

Facility schedules allow creating workday calendars for inventory organizations that are used in the Oracle Fusion Supply Chain Management product family. For example, use workday calendars in the scheduling of cycle counts and calculating transit time.

## Inventory Organization Prerequisites: Points to Consider

You can create a new inventory organization, or select an existing organization to define as an inventory organization.

Before creating inventory organizations:

- Set up inventory organization dependencies
- Plan inventory organization parameters

## Setting Up Inventory Organization Dependencies

When you create an inventory organization, you must associate it to dependencies, such as business units and legal entities. For this reason, create these dependencies before creating an inventory organization.

## Planning Inventory Organization Parameters

Before creating an inventory organization, plan the inventory organization's parameters

Consider the following when planning to configure an inventory organization's parameters

- Which schedule to use
- Which inventory organization to serve as the item master organization
- Whether to configure locator control and if so, the level at which to enforce the locator control
- How you want to configure movement request settings such as pick slip batch size and replenishment movement request grouping

Consider the size of your operation, your usage of subinventories, and the type of labor or equipment required when considering whether you want to use organization- or subinventory-level replenishment movement request grouping.

- How you want to configure lot, serial, and packing unit generation settings

To make appropriate choices for these settings, you should be familiar with:

- Your company's guidelines for creating lot names, serial numbers, and packing unit numbers
- Whether your company requires you to assign the same lot number to multiple items in the same organization, or a specific lot number to only one item in the same organization
- Whether your company requires you to place purchase order or shipping order material under lot control
- How you want to configure item sourcing details, such as the picking rule to use, and whether to specify the inventory organization as a logistics services organization

## Rounding the Reorder Quantity: How It Affects Min-Max Planning Reorder Calculations

When you specify to round reorder quantities, min-max planning reorders for item subinventories are automatically rounded up or down.

## Settings That Affect Rounding the Reorder Quantity

Reorder quantities for an item subinventory are calculated based on:

- The setting that you select for the **Round Order Quantity** parameter on the Manage Inventory Organization Parameters page, General tab, of the inventory organization containing the item subinventory
- The value that you specify for the **Fixed Lot Multiple** text box on the Add Item to Subinventory window

## How Rounding the Reorder Quantity Affects Min-Max Planning Reorder Quantity Calculations

If you enable rounding the reorder quantity for the inventory organization, and specify the fixed lot multiple for the item subinventory, the reorder quantity is rounded up. If you disable rounding the reorder quantity for the inventory organization, and specify the fixed lot multiple for the item subinventory, the reorder quantity is rounded down.

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### Note

To round reorder quantities, you must specify a fixed lot multiple.

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### Example: Rounding the Reorder Quantity

Assume that the reorder quantity is 24. If you enable rounding the reorder quantity and specify 10 for the fixed lot multiple, the reorder quantity is rounded up to 30. If you disable rounding the reorder quantity and keep the fixed lot multiple at 10, the reorder quantity is rounded down to 20.

## Selecting Lot Number Uniqueness Control: Critical Choices

Select one of the following lot number uniqueness control options to apply to the items in your inventory organization:

- No uniqueness control
- Across items

### No Uniqueness Control

You can assign the same lot number to multiple items in the same inventory organization and across inventory organizations. The following table provides an example of how lot numbers are generated when uniqueness control is not applied, both within and across inventory organizations.

Within Inventory Organization	Across Inventory Organizations
Item AS100 (printer) / Lot LN100	Item AS100 (printer) / Lot LN100

Item AS101 (laptop computer) / Lot LN100	Item AS101 (laptop computer) / Lot LN100
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### Across Items

You can only assign a unique lot number to a single item in one inventory organization. If the same item is also in a different inventory organization, you must assign that item a unique lot number. The following table provides an example of how lot numbers are generated when uniqueness control is applied across items, both within and across inventory organizations.

Within Inventory Organization	Across Inventory Organizations
Item AS100 (printer) / Lot LN100	Item AS100 (printer) / Lot LN300
Item AS101 (laptop computer) / Lot LN200	Item AS101 (laptop computer) / Lot LN400

## FAQs for Manage Inventory Organizations

### What happens if I select the Supplier item sourcing type for replenishment?

Items are replenished from an external supplier.

### What happens if I create an inventory organization as a logistics services organization?

The inventory organization is not costed, and shipment lines from different logistics service provider customers cannot be packed in the same packing unit.

## Define Facilities: Manage Item Organizations

### Item Organization: Explained

An item organization defines an item when inventory balances are not stored and inventory storage or inventory movement is not reflected in the Oracle Fusion Applications. For example, you would use an item organization in a retail scenario, if you need to know the items that are listed by and sold through each retail outlet even though inventory and transactions are recorded in another system. In Oracle Fusion Customer Relationship Management (CRM), item organizations are used to define sales catalogs.

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#### Note

- Items belong to an item organization.
- Item attributes that are associated with financial and accounting information are hidden from the item if it exists within the item organization.
- Item organizations can be changed by administrators to an inventory organization by updating the necessary attributes. There is no difference

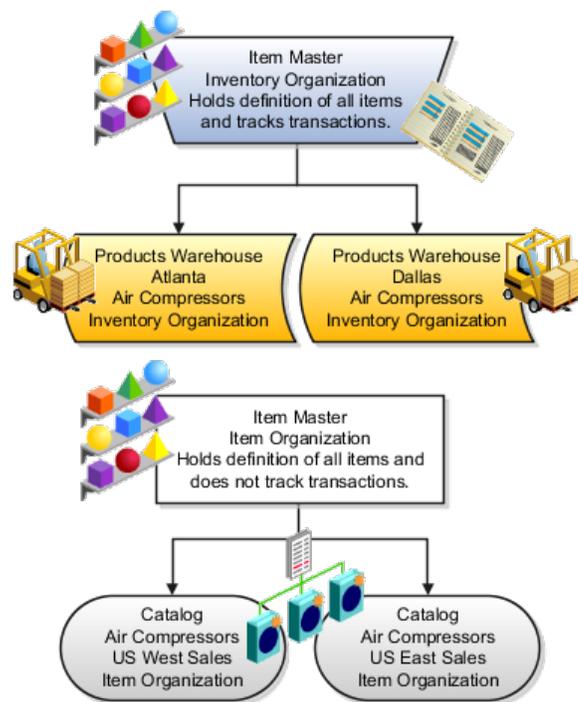
in the way items are treated in these two types of organizations except that there cannot be any financial transactions in the downstream applications for items that are assigned to an item organization.

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## Item Master Organization: Explained

An item master organization lists and describes items that are shared across several inventory organizations or item organization.

The following example shows the choice between inventory organizations that track inventory transactions, stored in two warehouses, and item organizations that just track items, listed in two sales catalogs.



For the most efficient processing, you should:

- Have a single item master
- Include an item and its definition of form, fit, and function only once in the item master
- Separate the item master organization from organizations that store and transact items

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### Note

Oracle Fusion allows multiple item masters, however, use this capability cautiously. If you acquire a company, there may be value in allowing the old item master to exist for a transition period. If you manage your subsidiaries as separate businesses, there may be reduced value in a single item master.

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# Common Applications Configuration: Define Social Networking

## Define Social Networking

### Getting Started with Oracle Fusion CRM Collaboration: Overview

Oracle Fusion CRM Collaboration is a collection of features of the Oracle WebCenter product. Employees in an organization can use these features to collaborate and stay informed of the latest information.

Employees can use Oracle Fusion CRM Collaboration features to do the following business tasks:

- Access real-time feeds of business transactions.
- Engage in contextual discussions around key business goals.
- Leverage group spaces to enhance team collaboration.
- Enhance virtual team communication by staying up-to-date on peer activities, deals, connections, and community updates.
- Gain greater visibility into opportunities and best practices.
- Make informed decisions with peer feedback.
- Access critical information to streamline the sales process.

From Oracle WebCenter, Oracle Fusion CRM Collaboration leverages the following features.

#### Activity Streams

Activity streams provide an ongoing view of activities from connections, actions taken in group spaces, and other business activities. Within Oracle Fusion CRM Collaboration, activity streams have been enabled for opportunities and customer business events, as displayed in the following Oracle Fusion CRM areas:

- Welcome page
- Sales Dashboard
- Customer Center overview page

Employees can use activity streams to:

- Stay current on relevant business updates or updates from the communities of which the user is a member.
- Stay up-to-date on what others are working on and what is happening in your organization.
- Make timely decisions with real-time contextual insight.
- Overcome organizational and geographical boundaries that make it hard to find help and expertise.
- Increase employee interaction and collaboration.

For more information, see "Tracking Your Connections Activities" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

## **Blogs**

Blogs are typically personal records of an individual user's experience and opinions. In Oracle WebCenter Spaces, users can create blogs to group related blog posts, for example to group topics by the same author or otherwise related topics. Each blog contains various blog posts. Although, blogs have not been exposed in Oracle Fusion CRM, users can access blogs by way of Oracle Web Center Spaces. For more information, see "Working with Blogs" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

## **Discussion Forums**

You can use a discussion forum to post, respond to, and preserve topical information, and other users can post information relevant to those topics. All of this information is preserved within the discussion forum so that teams of users can collaborate on opportunities and customer records. Everyone who is part of the opportunity or customer team can post and reply to discussions. Within Oracle Fusion CRM Collaboration, discussions are enabled for opportunities and customer business objects. For more information, see "Creating a Discussion Forum" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

Discussions has been enabled for:

- Opportunity
- Customer
- References
- Competitors

## **Group Spaces**

Teams of employees can use group spaces to collaborate in the context of an opportunity or customer record. Within a group space, employees can collaborate by engaging in existing discussions or creating new ones, and they can create new wikis. They can also create new group spaces and leverage available features, such as discussions, blogs, wikis, announcements, and so on. By using group spaces, employee groups can contend with work blockages, such as:

- Unstructured sales activities that are not captured.

- Information that is locked in silos.
- Hard-to-find successful or useful content.
- Numerous e-mail threads used for collective content authoring.

For more information, see "Understanding Space Basics" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

## Tags

Tags categorize business objects in Oracle Fusion Applications, for example specific invoices and opportunities, with your own keywords. You can share tags so that anyone searching or browsing for items can find them based on common tags. For more information, see "Working with the Tags Service" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

## Wikis

Wikis are Web sites of interlinked Web pages that members of a group can create and edit in a Web browser. Members who have the appropriate permissions can add and edit information to share it with their group. For more information, see "Working with Wikis" in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

Wikis have been enabled for:

- References
- Competitors

# Group Spaces in Oracle Fusion CRM:Highlights

Group spaces bring people together in a virtual environment for ongoing interaction and information sharing, enabling the formation and support of social networks. Teams can use group spaces to collaborate through discussions, in the context of an opportunity or customer record, and create new wikis. Users can also create a new group space and leverage available features, such as discussions, blogs, wikis, announcements, and so on. Group spaces support the collaboration of project teams and communities of interest by providing a dedicated and readily accessible area for relevant services, pages, and content, and by supporting the inclusion of specified members. A member can invite you to join a space, in which case you receive a notification. To see all the spaces that you can join, use the **Spaces** link in the global area or go to the **Spaces** dashboard, which contains a list of the spaces to which you belong, a list of any recommended spaces, and a tool to search for all public spaces that you can join.

The available features in a group space depend on the template that was selected when the group space was created. Out-of-the-box templates provide a variety of features. Spaces are an Oracle WebCenter feature that is used not only in the Oracle WebCenter Spaces application but also throughout Oracle Fusion Applications.

## Accessing Group Spaces

You can access group spaces by the **Spaces** link in the global navigation area. From there, you can access the existing public group spaces or the group space of which you are a member. From within the **Edit Opportunity** page of an

opportunity record, you can also access an existing group space or create a new group space. Click an icon to display a popup window where you can do the following group space activities:

- **Select and add a group space:** You can select an existing group space from the list. The application allows all users who have access to the opportunity record to use the features exposed in the selected group spaces.
- **Create and link a group space:** You can create new group spaces using existing group spaces templates. Users who have access to the opportunity record can use the features that are exposed in the newly created group spaces.

### **Setting Up Group Spaces**

You can associate existing group spaces to an object, or you can create new ones. These associations have no impact on any embedded group spaces within the object, nor do they create a new embedded forum or wiki for that object. You can make associations in the following ways:

- **Opportunity management:** A default group space is associated with each opportunity record. Drill into the group space to use any of the features available in the default group space (wikis and discussions). You can create and associate new group spaces to the opportunity record. Depending on the template that was selected when the group space was created, you can use any of the features in the group space, such as wikis, discussions, blogs, announcements, and so on.
- **Group Spaces link:** From the top navigation menu, you can create and access a group space and use any of the features available in the group space.

### **Security for Enabling or Viewing Group Space Widgets**

Users need specific security permissions to enable or view group space widgets, such as forums, wikis, and so on, for the following objects:

- **Opportunity:** For enabling, the typical role is a sales person or other advanced user. Security is controlled by an opportunity team member with full access plus the functional privilege View Opportunities. For viewing, the typical role is a sales person with regular access. Security is controlled by an opportunity team member with View or Edit access plus the functional privilege View Opportunities.
- **Competitor:** For enabling, the typical role is a sales administrator. Security is controlled with the functional privilege Manage Sales Competitor. For viewing, the typical role is a sales person with the functional privilege View Sales Reference.
- **Reference:** For enabling, the typical role is sales administrator. Security is controlled with the functional privilege Manage Sales Reference. For viewing, the typical role is a sales person with the functional privilege View Sales Reference.

### **Optional Enabling**

Deploying organizations have a choice of enabling embedded forums and wikis for sales objects by using two profile options:

- Key: (<Object> Group Space Enabled) Determines whether or not a particular object, such as an opportunity, has support for embedding forums and wikis.
- Key: (<Object> Group Space Template Default) Determines which group space template to use in case the object is to have embed support (if the value for the first option is Y.)
- For an embed-enabled sales object, the edit view for an instance of that object provides an additional check box to show existing embedded forums and wikis (or enable embedding and showing forums and wikis if no embedded widgets exist at that point). Only advanced users of the object instance (with full access for opportunities, sales administrators for competitors and references) can see and interact with this check box. It is not visible to other users.

### Embedding Group Space Widgets

To embed group space widgets, use the following actions:

- When embedded forums or wikis already exist, display the Discussions tab and Wikis tab with existing embedded content by checking the Discussions and Wikis check box. Forums and wikis are created for that object instance using the group spaces template that was specified in the first profile option. The Discussions tab and Wikis tab appear in the object instance for the newly-created widgets.
- To hide The Discussions tab and Wikis tab with existing embedded content, uncheck the Discussion and Wikis check box.

### Group Spaces and Oracle WebCenter

For more information on group spaces, see the Oracle Fusion Middleware User's Guide for Oracle WebCenter. As you read that guide, note the following points:

- Disregard content that is specific to the Oracle WebCenter Spaces application, for example the home space. Although there is no home space in Oracle Fusion Applications, many of the features within the home space are also available in Oracle Fusion Applications.
- The way to access spaces in Oracle Fusion Applications is different from the instructions in the guide. In Oracle Fusion Applications, you can use the Spaces link in the global area or on pages where available, as well as the Spaces dashboard.

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter

## Collaboration Capabilities in Oracle Fusion CRM:Highlights

Oracle Fusion CRM Collaboration includes the following features.

### Fusion Welcome Page

Across all Fusion applications, the **Fusion Welcome** page shows all activity stream messages:

- Opportunities and customer records that a user is following.

- Discussion groups of which the user is a member.
- Updates to wikis, blogs, announcements, and so on, from the group space of which the user is a member. The features available in a group space depend on the template that was used when the group space was created.
- Connections updates.
- Status updates.
- Healthcare management activity stream messages.
- Projects.
- All corresponding comments and likes for any of the above activity messages.

### **Sales Dashboard Page**

The Sales Dashboard shows activity stream messages for the following functions:

- Opportunities and customer records that a user is following.
- Discussion groups of which the user is a member.
- Updates to wikis, blogs, announcements, and so on, from the group space of which the user is a member. The features available on a group space depend on the template that was used when the group space was created.
- Connections updates.
- Status updates.
- All corresponding comments and likes for any of the above activity messages.

### **Customer Center Overview Page**

The Customer Center Dashboard shows activity stream messages for the following functions:

- Opportunities and customer records that a user is following.
- Discussion groups of which the user is a member.
- Updates to wikis, blogs, announcements, and so on, from the group space of which the user is a member. The features available on a group space depend on the template used when the group space was created.
- Connections updates.
- Status updates.
- All corresponding comments and Likes for any of the above activity messages.

### **Posting Messages**

You can post a status update message from the Oracle Fusion Welcome page. This message can be posted to Everyone, to members of a specific group space, or to members of a specific opportunity or customer sales team. A user can also post a message from an Oracle WebCenter group space. Within a group space, the same field is available for users to post a status update.

- For more information on Oracle Fusion CRM Collaboration capabilities,

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## Discussion Forums in Oracle Fusion CRM:Highlights

Teams of users can use discussion forums to collaborate on opportunities and customer records. Everyone who is part of an opportunity or customer team can collaborate and take part in discussions by posting and replying to discussions. When someone posts a new discussion entry or replies to an existing discussion, the users who are members of the opportunity or customer team are notified by an activity stream message.

Members can drill into a discussion to read all replies, watch the forum where discussions are created, and view, edit, reply, and create their own discussions by accessing the group space. Members can also create and participate in text-based discussions with other users within the scope of specific business objects, an application, or a space. For example, in Oracle Fusion Applications Help, you can post questions or comments regarding topics covered by a specific help file and view posts from other members regarding the same help.

The Discussions feature is an Oracle WebCenter service used within and outside of spaces in Oracle Fusion Applications. Discussions are fully described in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces. As you read that guide, note the following points:

- In Oracle Fusion Applications, discussions can exist outside of spaces. Content that is specific to spaces applies to spaces within Oracle Fusion Applications, but discussions work similarly outside of spaces.
- Various user interfaces, or task flows, are described in the guide. The interfaces and flows that are available to you depend on the pages that you can access.

### Setting Up and Using Discussion Forums

Moderators can create discussion forums in which members can view and participate in topics and threads. Set up and use discussion forums in the following ways:

- **Edit Opportunity page:** This option is available only to users at the level of someone like an opportunity owner, that is, a member with full access. To enable a discussion forum for an opportunity, click an Opportunity Name. Then in the Edit Opportunity page Summary region, check the Show Discussions and Wiki check box and then Save. This option creates discussions and wikis for the opportunity, and a Discussions tab in the Additional Details region of the Edit Opportunity page. After you enable discussions, you cannot disable them. When a discussion is enabled on the opportunity, anyone with a minimum of view access on the opportunity can contribute to it.
- **Customer Center:** For each customer record, the Discussion Forums link is displayed in the Customer Center region. A setup is not necessary.
- **Opportunity Management:** In each opportunity record the Discussions tab is available in the Additional Details region. You can create and associate new group spaces to the opportunity record and the user Discussions feature under the group space.

- Global group space: At the global navigation level, click the Spaces link, then Create. When you create a space choose the Discussion template, then you can navigate to the space, add members, create pages, and upload documents.

#### **See Also**

- For more information about discussion groups,

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## **Wikis in Oracle Fusion CRM:Highlights**

A wiki is a Web site of interlinked Web pages that allows members of a group to create and edit the Web pages in a Web browser. Members of a group who have the appropriate permissions can add and edit information and share it among the group. Wikis are available by way of CRM References and Competitors.

In Oracle WebCenter Spaces, you can create and manage wiki documents by using the Documents service. To support the wiki functionality, the Documents service stores all wiki documents on Oracle Content Server. For this feature to work, the Oracle Content Server needs to be set up.

#### **Setting Up Wikis**

This option is available only to users at the level of full access, for example, someone like an opportunity owner.

- In the Edit Opportunity page, to enable a wiki for an opportunity, click an Opportunity Name.
- Then in the Edit Opportunity page Summary region, check the Show Discussions and Wiki check box and then save.
- This option creates wikis for the opportunity and a Wiki tab about competitors. When a wiki is enabled on the opportunity, anyone with a minimum of view access on the opportunity can contribute to it.
- After you enable wikis, you cannot disable them.

#### **See Also**

- For more information about wikis, see the following document.

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## **Tags in Oracle Fusion CRM:Highlights**

Use tags to categorize business objects in Oracle Fusion Applications, for example specific invoices and opportunities, with your own keywords. You can share tags so that anyone searching or browsing for items can find them based on common tags. For example, members collaborating on a project can tag all related work with a particular term. Although tags are available to anyone who has access to the item, when you create tags you can designate them to be private .

The tags feature is an Oracle WebCenter service.

Tags are fully described in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces. As you read that guide, note the following points:

- Disregard discussions specific to the Oracle WebCenter Spaces application, for example the global search in the application.
- Although the guide describes tagging Oracle WebCenter pages and documents, in Oracle Fusion Applications you tag specific business objects.
- Not all tag features are available in Oracle Fusion Applications, for example the Tags and Similarly Tagged Items user interfaces.

## Understanding Tags

Aside from the **Tags** icon and the **Tag Center** dialog box, tags are available in Oracle Fusion Applications from applicable Oracle Fusion Applications Search results. The search considers tags in finding matching results. The search results do not indicate the number of times a particular tag was applied, and not all searches retrieve private tags. You can access the **Tag Center** dialog box from the global area or other places in Oracle Fusion Applications, for example in Oracle Fusion Applications Help. The **Tag Center** shows all tags, not only those relevant to what you are working on. For example, the tag center in Oracle Fusion Applications Help displays all tags, not only the tags for help files. Use tags to do the following actions:

- Use the tag icon to tag specific business objects. Read only about the step that describes the fields you enter to tag an item.
- Browse and search for items using tags in the Tag Center dialog box. Disregard instructions about how to open the tag center.
- For more information about tags,

See: "Understanding the Tag Center" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

See: "Tagging WebCenter Portal Application Pages" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

See: "Working with Tags and Tagged Items in the Tag Center" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## Activity Streams in Oracle Fusion CRM:Highlights

Activity streams show a continuous view of activities from connections, actions in group spaces, and other business activities. For example, you might see that specific users have created, edited, or deleted specific business objects, such as customers or opportunities, and you can use activity streams to access more information about that user or object. Additionally, similar to social networking Web sites, the activity stream displays messages that other users want to broadcast.

Activity Stream is an Oracle WebCenter feature, available in Oracle Fusion Applications on the **Welcome** dashboard and various other locations within and without the context of spaces. The types of activities that are tracked vary depending on each Activity Stream region.

## Setting Up Activity Streams

You can set up activity streams from the **Navigator** link by selecting **Setup and Maintenance** under **Tools**. In the **Search: Tasks** field, type "Activity". In the **Search Results** list select **Set Activity Streams Options**. Click the icon in the **Go to Task** column to open the **Setup and Maintenance** page. Expand **Service Categories**. In the rows for **Customer** and **Opportunity** select the following check boxes:

- **Display Activities:** When new updates are made, the application displays the corresponding activity messages on the application UI.
- **Allow Owner Override:** This function allows the end user to override the Display Activities option by going to the Activity Streams Options feature.
- **Publish:** The system publishes the activity stream messages when new updates are made. These messages are first published or written to the Activity Streams repository, where they are written to the database table but not displayed. To display them, click Display Activities.

## Understanding Activity Stream Security

Activity stream messages are only displayed to users who are:

- Following the opportunity or customer record (specific to CRM).
- Members of a discussion group who are involved with a discussion entry that is associated to an opportunity or customer record. In this case, users who have been invited to be part of the discussion receive an activity stream message for create, read, update, and delete operations about the discussion. The events tracked for opportunities are different from the ones tracked for customers.
- Connected to specific users.

See: "Tracking Your Connections' Activities" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

- Members of a group space.

## Tracking Activity Streams

Users can start receiving activity streams for opportunities or customer records by accessing the **Opportunity** or **Customer Edit** page. Under the header, click **Follow**. The system starts displaying the activity stream for changes to the records that the user is following. When using activity streams, note the following points:

- A user can stop receiving activity stream messages for opportunities or customer records by unfollowing the opportunity or customer record. Hover over the message and click Unfollow.
- You can hide (not display) updates to connections by hiding the person. You can also hide the activity stream messages from the group spaces that are associated to the opportunity or customer record.
- To view or unhide the connection or group space, click the Options link to see a list of connections or group spaces that are hidden. If you choose to

unhide them, the system displays the connections or group space activity stream messages again.

- When an activity stream message is displayed, the message contains hyperlinks to the user who updated the record. Clicking that user's name returns the user's Profile page. If the activity stream is for an opportunity record, then the hyperlink is to that opportunity record. If you click an opportunity name, then the application returns the Opportunity Edit page. If the activity stream is for a customer record, then the hyperlink is to that customer record. If the you click a customer name, then the application opens the Customer Edit page.

### **Liking and Commenting in an Activity Stream**

- For information on liking and commenting in an activity stream,

See: "Liking, Commenting On, and Sharing Objects" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

### **Activity Stream and Oracle WebCenter Spaces**

Activity streams are described fully in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces. As you read that guide, note the following points:

- Although the guide describes activity streams only in the context of spaces, in Oracle Fusion Applications activity streams work similarly outside of spaces.
- The scope of what is potentially tracked in activity streams is different from what is described in the guide. Many types of activities are specific to Oracle Fusion Applications.
- The exact navigation or user interface in Oracle Fusion Applications might differ from what is described in the guide. Ignore any subject matter that is specific to Oracle WebCenter Spaces.

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

### **Using Profiles**

In an activity stream message, click a person's name or picture to open the Portrait tab giving general information about that person, such as contact information and areas of expertise. If you click on your own name or picture, then the My Portrait tab opens, showing more detailed, human resources-related information about you, such as your professional development goals.

- For more information about profiles,

See: "Configuring Profile" in Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## **Blogs in Oracle Fusion CRM:Highlights**

Blogs are typically personal records of an individual user's experience and opinions. The word "blog" is a contraction of the term "Web log". In Oracle

WebCenter Spaces, you can create blogs to group related blog posts, for example to group topics by the same author or related subjects.

In Oracle WebCenter Spaces, each blog contains various blog posts, with the most recently added blog post displayed at the top. In a **Blog** page style mode, the **Archives** pane on the right provides controls for navigating to blog posts. Blog posts are categorized automatically by year and subcategorized by month. Next to the date of a year, the number in parenthesis represents the total number of blog posts created during that year. The number next to a month represents the total number of blog posts created during that month. For example, the designation December (2) shows that two blog posts were created in the month of December. Clicking any month displays all blog posts that were created during that month. You can view all blog posts available in a blog, regardless of the month or year they were created, by clicking the **View All** link. If there are more blog posts than can be displayed on one page, typically 10 posts, you can use the **Next** and **Previous** buttons to navigate through the list of blog posts.

### See Also

- For more information on blogs, see the following document.

See: Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces

## FAQs for Define Social Networking

### How can I enable social networking features?

Set the Social Networking Features Enabled profile option to "Y" on the Manage Social Networking Profile Option Values page. If you enable this profile option, users can access the following features:

- Kudos
- Message board
- Activity stream
- Connections
- Personal status

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### Note

If you disable social networking features, users can continue to access the bookmarks they created from the Bookmarks region in the Activities and Interests card on the My Portrait tab. Also, the spaces that users are a member of continue to appear in the Spaces region.

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# Common Applications Configuration: Define Workforce Profiles

## Profile Management: Explained

Profile management provides a framework for developing and managing talent profiles that meet your industry or organizational requirements. Profiles summarize the qualifications and skills of a person or a workforce structure such as a job or position. Profiles are valuable for tracking workers' skills, competencies, and accomplishments, and for various talent management activities, such as career planning, identifying training needs, performance management, and in the recruitment process for identifying job requirements and suitable applicants.

This topic discusses:

- Profile search
- Profile comparison
- Best-fit analysis

### Profile Search

You can search profiles for workers, jobs, and positions with certain criteria. For example, an HR (Human Resources) specialist in London who is looking to fill an applications developer position from within the company can search for profiles of all workers who are based in London and have experience with Java and PL/SQL.

### Profile Comparison

Using the comparison feature, you can compare profiles to determine next career moves or training needs for workers, and identify suitable candidates for jobs. For example, if John is looking for his next career move, he can compare his profile to that of a job to determine whether his competency ratings match the targeted competency ratings in a job profile. For example, if his Teamwork rating is 3 and the Product Strategy Teamwork requirement is 4, he has a deficiency of -1. John and his manager can use this gap to drive development plans and for other talent management-related functions.

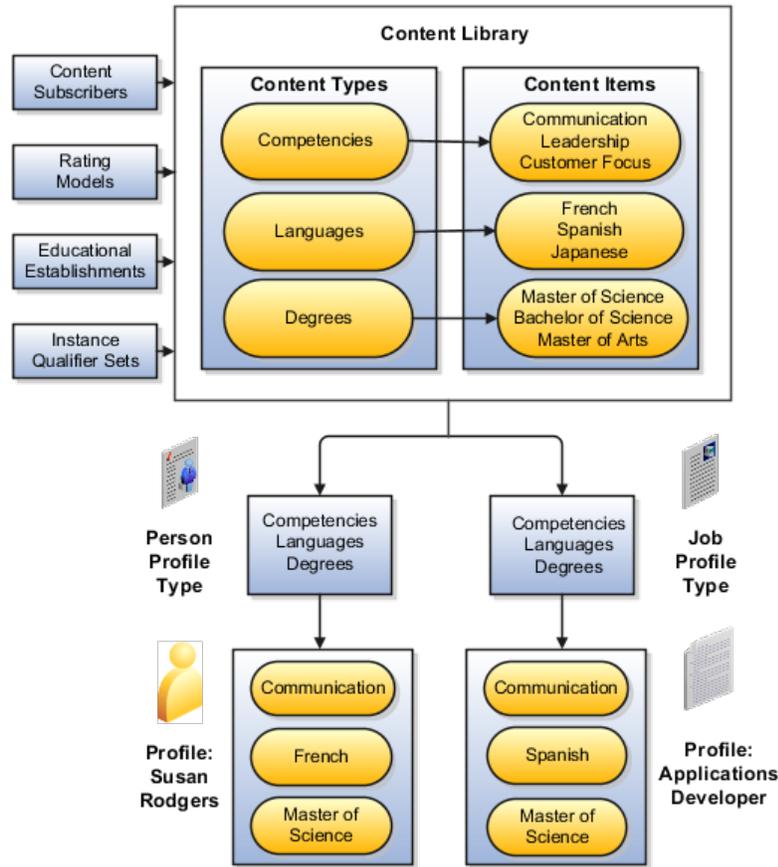
### Best-Fit Analysis

Use the best-fit analysis to determine the person profile that most closely matches a job profile, or the job profile that is the best match for a person profile. For example, if you are trying to fill a Developer vacancy, and the job profile requires a B.S. degree in Computer Science, level 4 expertise coding Java, and a Teamwork rating of at least 3, you can review an automatically-generated list of workers who most closely match this set of requirements. You can also use the best-fit analysis to find workers who are similar to a selected worker, or jobs that are similar to a selected job.

# Oracle Fusion Profile Management Components: How They Work Together

You can configure Oracle Fusion Profile Management to meet your business requirements using these components: the content library, profiles and profile types, content subscribers, educational establishments, instance qualifier sets, and rating models.

This figure illustrates how the components of Profile Management fit together.



## Content Library

The content library provides the foundation for profiles as it stores both content types and content items.

## Profile Types

Profile types are templates that you use to create profiles. Profile types determine whether the profile is for a person or for a workforce structure such as a job or a position, and the content of the profile. You select content types from the content library to create content sections for the profile type.

## Profiles

You create person profiles for individual workers and model profiles for workforce structures, such as a jobs or positions. The information that you complete for the profile is determined by how the profile type has been set up. For example, a person profile might contain information about a person's education, language skills, competencies, and activities and interests. A job profile might contain information about the requirements for the job, such as competencies, language skills, degrees, or certifications.

### **Content Subscribers**

Content subscribers are applications external to Oracle Fusion Profile Management that use content types.

### **Educational Establishments**

You can define educational establishments for workers to use when they add education information, such as degrees, to their profile.

### **Instance Qualifier Sets**

You assign instance qualifiers to content types. Instance qualifier sets uniquely identify multiple instances of a content item on a profile. For example, if multiple people update a performance rating for a competency on a worker's profile, instance qualifiers provide a unique identifier to each instance of the competency so that you can determine who provided each rating.

### **Rating Models**

When you create content types in the content library, you can attach rating models to determine the scale for measuring performance and proficiency. You can also use rating models to measure the risk and impact of loss for workers, and to measure their potential.

## **Oracle Fusion Profile Management, Performance Management, Goal Management, and Talent Review: How They Work Together**

Oracle Fusion Profile Management supports talent management business processes in these products:

- Oracle Fusion Performance Management
- Oracle Fusion Goal Management
- Oracle Fusion Talent Review

### **Oracle Fusion Performance Management**

Oracle Fusion Performance Management uses the rating models that you define in Profile Management to rate workers on their performance. When you define a performance document template, you can specify whether the ratings and comments from managers and workers are uploaded automatically to workers' profiles when the performance document is finalized. Instance qualifier sets distinguish the manager ratings from the workers' self ratings. Performance Management also uses competencies from the content library in performance documents.

### **Oracle Fusion Goal Management**

You can set up a content type relationship between the Goals content type and other content types, such as the Competencies content type and the Memberships content type. Using these relationships, you can then set up target outcomes for goals. Target outcomes are the content items within the content type that is related to the Goals content type. For example, if you set up a relationship between the Goals content type and the Competencies content type, workers can add a target outcome of a specific competency to their goals. In this case, the specific competency is the content item within the Competencies content type. When workers complete the goal, their profiles are updated to include the competency.

### **Oracle Fusion Talent Review**

Oracle Fusion Talent Review uses information from the Performance and Potential and Risk of Loss sections within a worker's profile to build the analytics that are part of the talent review process. These sections are defined as content types within the content library and included in the person profile type. When a talent review is complete, workers' profiles are updated automatically with the performance and potential ratings given during calibration discussions.

Instance qualifier sets enable you to distinguish the talent review rating from ratings given by the worker's manager, a peer, or perhaps the worker's self-evaluation.

## Define Talent Profile Settings

### Profile Management Lookups: Explained

This topic identifies common lookups that are profile management-related and have user or extensible customization levels. Review these lookups, and update them as appropriate to suit enterprise requirements.

#### Profile Management Lookups

Profile management lookups are described in the following table.

Lookup Type	Description	Customization Level
HRT_CONTENT_SUPP_CODE	Codes to identify where the content type originated, such as from the customer or from a third party. HR specialists assign supplier codes when setting up new content types.	Extensible
HRT_COMPETENCY_EVAL_TYPE	Types of competency ratings, such as self, supervisor, and peer. Evaluation types are used in instance qualifier sets to identify the role of the person who provided a competency rating for a worker.	User
HRT_DEGREE_LEVEL	Required levels of education for a job or position profile, such as a Bachelor's Degree or Masters degree.	User
HRT_DURATION	Time periods for when a worker would like to make a career move. Workers select a duration for their career move in the career preferences information on the career planning card.	User
HRT_EDUCATION_LEVEL	Types of education that a degree provides, such as a Bachelor's degree or one year college. HR specialists use education levels when creating content items in the Degrees content type.	User
HRT_IMPORTANCE	Values for the importance level of each content type. Importance values are used in the best-fit analysis calculation.	User
HRT_NOTES_TYPE	Values for categories of notes, such as external, internal, and so on.	User
HRT_PAY_FREQUENCY	Frequencies at which a worker is paid. Workers specify a preferred pay frequency when they edit their work requirements on the experience and qualifications card.	User

HRT_READINESS	Time periods in which a worker will be ready for advancement to a specified job or position profile. Managers and human resource (HR) specialists use readiness levels when editing the talent ratings information on workers' career planning cards.	User
HRT_RISK_REASON	Reasons for why a worker is at risk for leaving the company. Managers and HR specialists use risk reasons when editing the talent ratings information on workers' career planning cards.	User
HRT_SATISFACTION_METHOD	Methods by which an item such as a competency is verified, such as assessment or demonstration. Managers and HR specialists use these values to identify the method that was used to evaluate the proficiency of a worker in a particular skill or quality.	User
HRT_TASK_PRIORITY	Codes for the priority of a task, such as High, Medium, and so on. Talent review facilitators specify a priority when assigning tasks during a talent review.	Extensible
HRT_TASK_TYPE	Categories of tasks, such as Preparation, Presentation, and so on. Talent review facilitators specify a task type when assigning tasks during a talent review.	Extensible
HRT_TRAVEL_FREQUENCY	Percentages of time a worker is expected to travel for a job or position, for example, 25 percent or 50 percent. Managers and HR specialists specify the required travel frequency on job and position profiles. Workers also specify a travel frequency when they edit their work requirements on the experience and qualifications card.	User
HRT_VALIDITY_PERIOD	Periods of time for which content items such as licenses and certifications are valid. Managers and human resource (HR) specialists select validity periods when setting up content items for the Licenses and Certifications content type.	User
HRT_WORK_DAYS	Work days for a job or position, such as Monday through Friday. Managers and HR specialists specify the expected work days on job and position profiles.	User

HRT_WORK_HOURS	Work hours for a job or position, such as 9:00 a.m. to 5:00 p.m. Managers and HR specialists specify the expected work hours on job and position profiles.	User
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## Value Sets: Explained

A value set is a set of valid values that you assign to a flexfield segment.

An end user enters a value into a flexfield segment while using the application. The flexfield validates the segment against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

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### Caution

Be sure changes to a shared value set are compatible with all flexfields segments using the value set.

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Defining value sets involves making decisions about the following.

- Validation
- Security
- Precision and scale
- Usage and deployment

### Validation

The following types of validation are available for value sets.

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set does not present a list of valid values to users.

You can build a tree structure from the values in an independent value set whose data type is character.

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**Note**

Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

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For more information, see the Oracle Fusion Applications Extensibility Guide.

**Security**

Value set security only works in conjunction with usage within flexfield segments. If a value set is used standalone, meaning outside a flexfield, value set security is not applied, but Oracle Fusion data security is enforced.

You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. If a value set is secured, every usage of it in any flexfield is secured. It is not possible to disable security for individual usages of the same value set.

Value set security applies to independent, dependent, or table-validated value sets.

Value set security applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security does not determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

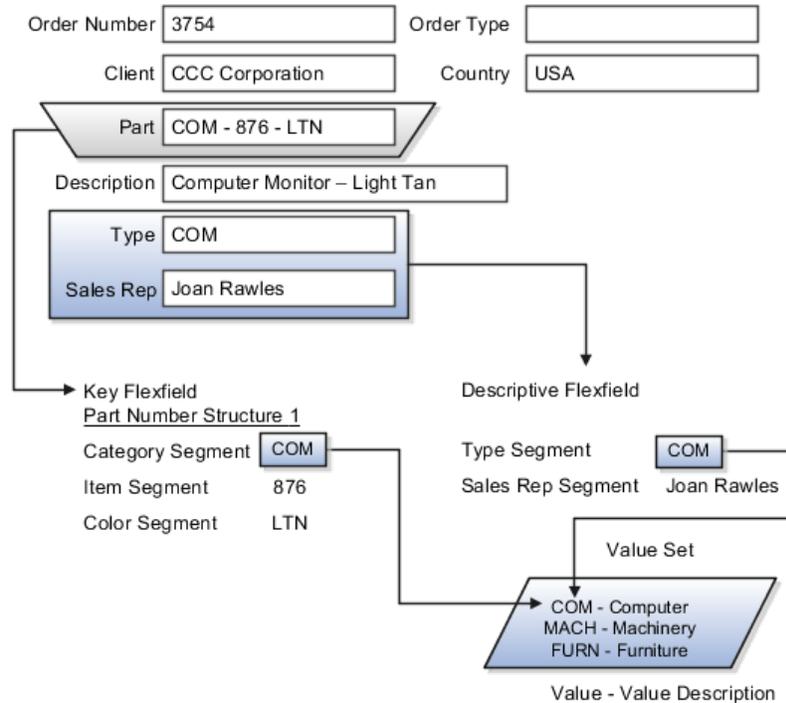
**Precision and Scale**

For a value set with the data type Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

**Usage and Deployment**

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.



For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

## Defining Value Sets: Critical Choices

Validation and usage of value sets determine where and how end users access valid values for attributes represented by flexfield segments.

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### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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### Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets. The data type must be character and the maximum length of the values being stored must not be larger than column length of the context.

### Format Only Validation

The format only validation type enables end users to enter any value, as long as it meets your specified formatting rules. That is, the value must not exceed the maximum length you define for your value set, and it must meet any format requirements for that value set.

For example, if the value set allows only numeric characters, your user could enter the value 456 (for a value set with maximum length of three or more), but could not enter the value ABC. A format only value set does not otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how many digits should follow the radix separator.

### **Interdependent Value Sets**

You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. You use a dependent value set to limit the list of values for a given segment based on the value that the end user has chosen for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of U.S. states with values such as CA, NY, and so on. Then you define a dependent value set of U.S. cities, with values such as San Francisco and Los Angeles that are valid for the independent value CA, and New York City and Albany that are valid for the independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. End users do not need to choose a value for another segment first to have access to the subset value set.

### **Table Validation**

Typically, you use a table-validated set when the values you want to use are already maintained in an application table (for example, a table of vendor names). Table validation allows you to enable a segment to depend upon multiple prior segments in the same context or structure.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it does not have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

### **Range**

In the case of format, independent, or dependent value sets, you can specify a range to further limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range.

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100. If you use a table value set, you cannot reference flexfield segments in the WHERE clause of the value set. For example, the WHERE clause cannot reference a segment or a value set.

### **Security**

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the

roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

When you enable security on a table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set should not assume anything about the bind variables; it must assume the whole list of values is available and write the rule, for example, to allow x, or to allow y and z. By default in data security all values are denied, and show only rows to which access has been provided.

### **Maintenance**

There is no need to define or maintain values for a table-validated or subset value set, as the values are managed as part of the referenced table or independent value set, respectively.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your application in the future, select **Translatable**. This does not require you to provide translated values now, but you cannot change this option if you decide to provide them later.

For more information about defining value sets, see the Oracle Fusion Applications Extensibility Guide.

## **Define Talent Profile Content**

### **Rating Models: Explained**

Use rating models to rate workers on their performance and level of proficiency in the skills and qualities that are set up on the person profile. You can also use rating models to specify target proficiency levels for items on a model profile, so that the model profile can be compared to workers' profiles.

To rate workers on their performance and proficiency, you attach rating models to the content types that are included in the person profile, and then workers can be rated on the items within the type. For example, you can rate workers on the Communication content item within the Competencies content type.

For model profiles, you can specify target proficiency levels for items on the profile, so that the model profile can be compared to workers' profiles. Using the ratings, managers can compare a model profile to workers' profiles to determine the best person suited to fill a position. Workers can compare their profile to model profiles to identify other positions within the organization that they are suited for, or to identify gaps in skills that they need to fill before applying for other positions.

Rating models that measure workers' potential and the impact and risk of loss are also available.

Rating models can include some or all of the following components, depending on the use for the model:

- Rating levels

- Review points
- Rating categories
- Distributions

### **Rating Levels**

Rating levels identify the qualitative values, such as 1, 2, 3, or 4, that you use to rate a worker.

For rating models that are used by Oracle Fusion Performance Management, the following applies:

- You must define numeric ratings for rating models that you use with performance documents that use calculated ratings.
- You must define rating levels using whole numbers, with the highest number indicating the best rating, for the Performance Management analytics to render correctly. Rating levels determine high and low ratings in the analytics.

### **Review Points**

Define review points for rating models that you use with performance documents that use the sum or band calculation method. The review points and point ranges that you define for the rating model are used to calculate ratings.

### **Rating Categories**

Rating categories enable you to group rating levels together for analysis tools used in the talent review process, such as the box chart that is used in the talent review process. You can group rating levels into categories such as low, medium, and high, and those categories then become the labels for the analytic. You should not change rating categories after setting them up, as the changes could affect the analytic.

### **Distributions**

Oracle Fusion Compensation Management and Oracle Fusion Performance Management both use rating model distributions to determine the targeted minimum and maximum percentage of workers that should be given each rating level. Compensation Management uses the distribution values that you set up directly on rating models. However, you can set up distributions at the performance template level for rating models that are used in Performance Management.

## **Content Types: Explained**

Content types are the skills, qualities, and qualifications that you want to track in talent profiles. The content library contains predefined content types such as competencies, languages, and degrees, but you can create new content types as needed. You can also create free-form content types.

Content types contain:

- Properties
- Relationships
- Subscribers

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**Note**

Free-form content types do not contain relationships or properties. You add properties for free-form content types when you add them to a profile type.

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**Properties**

For each content type, you define the properties that all content items of the content type can or must have. To define properties of the content type, you select fields to be displayed when setting up the content items and the attributes of those fields. The attributes that you specify for each field are: field label, default value, whether the field is required, and whether the field is hidden, display-only, or editable. If the field is attached to a predefined list of values, you also specify the source of the list.

**Relationships**

Specify where one content type is a parent of another, or where one content type supports another. Content items of content types with relationships inherit the relationship. You cannot create two kinds of relationships between two types or create a relationship between a type and itself. For example, content type A cannot be both the parent and child of content type B. A content type cannot be related to itself.

**Subscribers**

Specify the subscriber codes of the applications or other Oracle Fusion products that use each content type. If you do not specify a subscriber code for the content type, you cannot view the content type in other applications. For example, if you add a new content type called Corporate Citizenship to the person profile type, you cannot view the content section for Corporate Citizenship in person profiles until you add the new content type to the HRMS content subscriber code.

## Content Type Relationships: Examples

Content relationships enable you to associate content items of related content types with each other. The following scenarios illustrate the use of content type relationships.

**Tracking Product Expertise**

The Resource Manager component of Oracle Fusion Trading Community Model uses content type relationships to track the areas of expertise of workers. Using the predefined content type relationship where the Categories content type is a parent of Products, and Products is a parent of Components, resource managers can keep track of the categories, products, and components that are considered to be their areas of expertise for their resources.

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**Note**

Because these content types and relationships are applicable only to the Resource Manager component of Oracle Fusion Trading Community Model, this product is the only predefined content subscriber to these content types.

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**Specifying Target Outcomes for Goals**

To help your workers manage their goals, you want them to associate their goals with target outcomes, which are content types such as Competencies

and Memberships. To accomplish this, you can set up a relationship on the Competencies content type where Competencies is supported by Goals. Workers can then set up goals that have a specific competency as a target outcome.

## Content Items: Explained

Content items are the individual skills, qualities, and qualifications within the content types in the content library. For example, within the Competencies content type, communication is a content item. You can create content items to meet your business needs.

This topic discusses:

- Item properties
- Related content items
- Proficiency descriptions

### Item Properties

Content items inherit the fields and field properties that you define for the content type to which the item belongs. For example, one of the fields defined for the Memberships content type is ITEM\_DESCRIPTION field. The attributes of this field are set up so that the label is Description, the field is editable, and the field does not require an entry. When you set up a content item for the Memberships content type, you will see a field labeled Description, in which you can enter text to describe the agency, but the field will not be required.

### Related Content Items

If the content type for which you are creating an item has related content types, then you can enter the related content items for the item. For example, if you have a content type relationship where the Competencies content type is supported by the Goals content type, then on the content items for competencies, you can enter the related goals.

### Proficiency Descriptions

If the content item belongs to a content type that has a rating model defined for it, then you can either use the existing descriptions for the ratings within the model, or define descriptions for the ratings that are specific to the content item. When ratings are given for the content item, the descriptions defined for the item are used instead of those on the rating model.

## Creating Content Types and Content Items: Worked Example

This example demonstrates how to set up a new content type and content items to track the corporate citizenship activities of your workers so that you can rate them on their involvement in the organization. This example also demonstrates how to set up a rating model to be used with the content type and add the new content type to the person profile.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Can a predefined rating model be used to rate corporate citizenship?	No. The predefined rating models do not have relevant rating descriptions.

Should the content type be a free-form content type?	No. Content items are needed, and the content should be stored in the content library.
What field and properties should the content type contain?	<p>Add two fields to the content type:</p> <ul style="list-style-type: none"> <li>• ITEM_TEXT_20</li> <li>• RATING_MODEL_ID</li> </ul> <p>The ITEM_TEXT_20 field will have a label of <b>Comments</b>, and will be used to enter comments about the workers' corporate involvement. The RATING_MODEL_ID field will have a label of <b>Company Contribution</b> and will be used to attach the rating model for corporate citizenship to the content type.</p> <p>Both fields should require entry and should be editable.</p>
Does the content type need any content subscribers?	Yes. In order to be visible on the person profile, the new content type must be added to the HRMS content subscriber code.
What content items are needed to track the required information?	<ul style="list-style-type: none"> <li>• Corporate social responsibility</li> <li>• Corporate environmental responsibility</li> <li>• Corporate industrial citizenship</li> <li>• Corporate state citizenship</li> <li>• Corporate borough, council, or municipal citizenship</li> </ul>
When the content type is added to the person profile as a content section, what properties should the fields contain?	Both the <b>Comments</b> field and the <b>Company Contribution</b> fields should display in the detail view of the content section, they should be required, and they should be included in search results.

To track corporate citizenship for your workers, complete the following tasks:

- Create a rating model.
- Create a content type.
- Create content items.
- Add the content type to the person profile type.

### Creating a Rating Model

1. In the Setup and Maintenance work area, search for the **Manage Profile Rating Models** task and click **Go to Task**.
2. On the Manage Rating Models page, click **Create**.
3. On the Create Rating Model page, complete the following fields, as shown in this table. Use the default values except where indicated.

Field	Value
Code	Citizenship
Rating Name	Corporate Citizenship

<b>Description</b>	Rating model for corporate citizenship
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- On the Rating Levels tab, complete the following fields, as shown in this table.

Rating Level	Name	Short Description
1	Demonstrates limited or unused influence.	Limited
2	Demonstrates clear evidence of influence.	Clear Evidence
3	Provides a successful image of the company as socially responsible in limited environments.	Successful Image
4	Actively called upon to use influence as a corporate representative in selected environments.	Influential in Selected Environments
5	Demonstrates high level of influence and is able to operate effectively in all environments.	High Level of Influence

- Click **Save and Close**.

## Creating a Content Type

- In the Setup and Maintenance work area, search for the **Manage Profile Content Types** task and click **Go to Task**.
- On the Manage Content Types page, click **Create**.
- On the Create Content Type page, add a content type by completing the following fields, as shown in this table. Use the default values except where indicated.

Field	Value
<b>Code</b>	Citizenship
<b>Name</b>	Corporate Citizenship
Description	Ratings for corporate citizenship behaviors for workers.

- Set up the following field properties, as shown in this table. Use the default values except where indicated.

Field Name	Field Label	Required	Display Option
ITEM_TEXT_20	Comments	Selected	Editable
RATING_MODEL	Company Contribution	Selected	Editable

5. Click **Save and Close**.
6. On the Manage Content Types page, select the **Corporate Citizenship** content type and click **Edit**.
7. On the Edit Content Type page, select the **Subscribers** tab.
8. On the Subscribers tab, click **Add**.
9. In the Subscriber Code field, select **HRMS**.
10. Click **Save and Close**.

## Creating Content Items

1. In the Setup and Maintenance work area, search for the **Manage Profile Content Items** task and click **Go to Task**.
2. On the Manage Content Items page, click **Create**.
3. In the Create Content Item dialog box, complete the following fields, as shown in this table.

Field	Value
Content Type	Corporate Citizenship
Content Item	Corporate Social Responsibility

4. On the Create Content Item: Corporate Social Responsibility page, select the **Corporate Citizenship** rating model in the **Rating** field.
5. Click **Save and Close**.
6. Repeat steps 2 through 5 to add content items for Corporate Environmental Responsibility, Corporate Industrial Citizenship, Corporate State Citizenship, and Corporate Borough, Council, or Municipal Citizenship.

## Adding the Corporate Citizenship Content Type to the Person Profile Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Types** task and click **Go to Task**.
2. On the Manage Profile Types page, locate the Person profile type and click **Edit**.
3. On the Edit Profile Type: Person page, select the **Content Sections** tab.
4. In the Content Sections region, click **Add Content Section**.
5. In the Content Types dialog box, select **Citizenship**.
6. In the Content Sections region, click **Citizenship**.
7. On the Content Section page, set up the following field properties, as shown in this table. Use the default values except where indicated.

Column Name	Display Flag	Required	Searchable
ITEM_TEXT240_1	Detail	Selected	Selected
RATING_LEVEL_I	Detail	Selected	Selected

8. On the Edit Profile Type: Person page, click **Save and Close**.
9. In the Content Access Section region, click **Add**.
10. In the Role field, select **Employee**.
11. Select the **Update** check box.
12. Click **Add**.
13. In the Role field, select **Manager**.
14. Click **OK**.
15. Click **Add**.
16. In the Role field, select **HR Specialist**.
17. Click **OK**.
18. On the Edit Profile Type: Person page, click **Save and Close**.

## Free-Form Content Types: Worked Example

This example demonstrates how to set up a free-form content type, add it to the HRMS content subscriber code, and then add the content type to the person profile type.

Your company wants to track the previous employment information for workers, including employer name, dates of employment, and job description. However, you do not want to set up and maintain content items for each employer, and this information applies only to person profiles. You decide to use a free-form content type for this information. You can set up the free-form content type with minimal information, and then when you add it to the person profile as a content section, you can define properties for employer name, dates of employment, and job description. Workers can complete their employment information on their profile based on how you set up the content section. The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Should the content type be a free-form content type?	Yes. Content items are not needed, and the content should not be stored in the content library.
Does the content type need any content subscribers?	Yes. In order to be visible on the person profile, the new content type must be added to the HRMS content subscriber code.
When the content type is added to the person profile as a content section, what fields are needed?	<p>To capture the previous employer, a text field is needed. To capture employment dates, two date fields are needed. To capture job description, another text field is needed. Therefore, the following fields must be added:</p> <ul style="list-style-type: none"> <li>• ITEM_TEXT30_1</li> <li>• ITEM_DATE_1</li> <li>• ITEM_DATE_2</li> <li>• ITEM_TEXT240_1</li> </ul>

What properties are needed for the ITEM_TEXT30_1 field?	The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows: <ul style="list-style-type: none"> <li>• <b>Label:</b> Previous Employer</li> <li>• <b>Display:</b> Detail (section should appear in detail view of profile)</li> </ul>
What properties are needed for the ITEM_DATE_1 field?	The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows: <ul style="list-style-type: none"> <li>• <b>Label:</b> From Date</li> <li>• <b>Display:</b> Detail</li> </ul>
What properties are needed for the ITEM_DATE_2 field?	The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows: <ul style="list-style-type: none"> <li>• <b>Label:</b> To Date</li> <li>• <b>Display:</b> Detail</li> </ul>
What properties are needed for the ITEM_TEXT240_1 field?	The field should not be required and the information should not be available as search criteria, so you need only set up these field properties as follows: <ul style="list-style-type: none"> <li>• <b>Label:</b> Job Description</li> <li>• <b>Display:</b> Detail</li> </ul>
What role access should be granted for the content section?	Employees, managers, and HR specialists should all have access to update the section.

To set up a free-form content type to track previous employment information for workers, you must:

- Set up a free-form content type
- Add the free-form content type to the person profile type

### Setting Up a Free-Form Content Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Content Types** task and click **Go to Task**.
2. On the Manage Content Types page, click **Create**.
3. On the Create Content Type page, complete the following fields, as shown in this table.

Field	Value
<b>Code</b>	PREVEMP
<b>Name</b>	Previous Employment
<b>Description</b>	Track previous employment information for workers.

4. Select the **Free-Form Type** check box.

5. Click **Save and Close**.
6. On the Manage Content Types page, select the **Previous Employment** content type and click **Edit**.
7. On the Edit Content Type page, select the **Subscribers** tab.
8. On the Subscribers tab, select HRMS in the **Subscriber Code** field.
9. Click **Save and Close**.

### Adding the Free-Form Content Type to the Person Profile Type

1. In the Setup and Maintenance work area, search for the **Manage Profile Types** task and click **Go to Task**.
2. On the Manage Profile Types page, select the **Person** profile type, and click **Edit**.
3. On the Edit Profile Type: Person page, select the **Content Sections** tab and click **Add Content Section**.
4. In the Content Types dialog box, select the **Previous Employment** content type.
5. In the Content Sections region, click the **Previous Employment** content type and enter the following properties on the Content Section page, as shown in this table.

Column Name	Label	Display
ITEM_TEXT30_1	Previous Employer	Detail
ITEM_DATE_1	From Date	Detail
ITEM_DATE_2	To Date	Detail
ITEM_TEXT240_1	Job Description	Detail

6. In the Content Access Section region, click **Add**.
7. In the Role field, select **Employee**.
8. Select the **Update** check box.
9. Click **Add**.
10. In the Role field, select **Manager**.
11. Click **OK**.
12. Click **Add**.
13. In the Role field, select **HR Specialist**.
14. Click **OK**.
15. On the Edit Profile Type: Person page, click **Save and Close**.

### FAQs for Define Talent Profile Content

#### What's a rating category?

A label for a grouping of rating levels. Rating categories are used in talent management processes such as performance management and talent reviews to group ratings for analysis tools such as the performance and potential box chart.

### **Why are some content type relationships not editable?**

You can edit any content type relationships that you define. However, the relationships that are predefined cannot be changed.

### **How can I define a relationship between the Goals content type and other content types?**

Set up the relationship on the content type that you want to relate to goals using the relationship type: Is supported by. For example, if you want to define a relationship between the Goals content type and the Competencies content type, set up the relationship on the Competencies content type, instead of the Goals content type.

### **What's a free-form content type?**

Free-form content types enable you to capture information in a profile that you do not need to store in the content library. For example, you can set up a free-form content type to store information about the previous employment information for your workers.

A free-form content type contains only a code, name, and a description, and does not have any properties defined for it until you add it to a profile type. Free-form content types do not include any content items.

### **Why can't I change the relationship type of a content item?**

A content item's relationship type is derived from its content type, and you cannot change it. You can only change relationships at the content type level. You cannot change predefined relationships.

## **Define Talent Profiles**

### **Profile Types: Explained**

Profile types include person profile types and model profile types. The person profile type is the template that you use to create profiles of your workers. The person profile contains the skills, qualities, and qualifications that you want to track for your workers. The person profile type is predefined, and you can have only one. Model profile types are templates for workforce structures such as jobs and positions. Model profiles identify the targeted and required skills and qualifications for a job or position, and also identify work requirements, such as work schedule and travel frequency. You can set up multiple model profile types.

To define profile types, you first specify whether the profile type is a person or model profile. For model profiles, you also specify the workforce structures for which the model profile can be used. For example, if you specify that the model profile can be used for jobs and positions, then you can use the profile

type to create both job and position profiles. To define the structure of the profile type, you add one or more content sections using content types from the content library and free-form content types. Define the following for each content section:

- Instance qualifier sets
- Section properties
- Role access

### **Instance Qualifier Sets**

If you have defined instance qualifier sets for the content type, you select the instance qualifier set to use for the sections.

### **Section Properties**

The properties determine the fields and how they are displayed when you create profiles based on the type. For example, properties determine the label for the field, whether the field is required, and whether the field should be included in profile searches. For sections with content types from the content library, you can use the field properties as they have been defined in the content library, or add, remove, or change the properties to suit the content section. You define all of the properties for free-form content types.

### **Role Access**

You can specify the user roles, such as Employee or Manager, that can view the content section, and which user roles have access to update the section.

## **Instance Qualifier Sets: Explained**

An instance qualifier set is a group of codes that you use to uniquely identify different occurrences of the same profile item within the Competency content type. Instance qualifiers typically identify the role of the person who edited a competency. For example, if a worker, the worker's peer, and the worker's manager all enter a rating for a competency on the worker's profile, instance qualifier sets uniquely identify each instance, or, the rating given by each different role. Uniquely identifying different instances of competencies enables you to specify which instance is used when you view or compare profiles.

Each instance qualifier contains a code and a description, which indicate the role or the application that updated the competency. For example, P is the code that is used when an employee's peer rates the employee and T is used for the rating that results from the talent review meeting. You can use the predefined codes and descriptions, or you can create your own.

In addition to the code and description, each instance qualifier has the following properties:

- Priority
- Employer and manager views

- Search ability
- Default instance qualifier for employer and manager

### **Priority**

Priority determines the order in which different instances of a competency are displayed, and also determines which instance to use when searching and comparing profiles. The lowest number indicates the highest priority.

### **Employer and Manager Views**

Employer and manager views determine which instances are visible to employees and to managers.

### **Search Ability**

You can specify whether items that have been assigned the instance qualifier code should be included in profile searches. For example, you might not want the ratings for competencies given by peers to display when other workers are searching person profiles.

### **Default Instance Qualifier for Employee and Manager**

You can specify the default instance qualifier to use when managers and employees update a competency. Each time an employee or manager updates a competency, the record is assigned the instance qualifier code that is identified as the employee or manager default code.

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# Common Applications Configuration: Define Security for CRM

## Security Tasks: Highlights

Security tasks include the following.

- Security setup
- Security implementation and administration

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### Note

Security setup and administration tasks typically use integrated user interface pages that are provided by the following products.

- Oracle Identity Manager (OIM)
- Oracle Authorization Policy Manager (APM)
- Oracle Fusion Human Capital Management (HCM) products
- Oracle Application Access Control Governor (AACG) in Governance, Risk, and Compliance Controls (GRCC)

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Security setup and administrative tasks performed by product administrators and implementation consultants, such as managing HCM security profiles, are presented in the documentation for those products.

### Set Up the IT Security Manager Job Role

Provision the IT Security Manager job role with roles for user and role management.

- Using the OIM Administrator user name and password, sign in to Oracle Identity Manager (OIM). Refer to the Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition).

See: Creating Users and Groups for Oracle Identity Manager

- Open the IT Security Manager job role's attributes and use the Hierarchy tab to add the User Identity Administrators role and the Role Administrators role in the OIM Roles category using the Add action. Use the Delegated Administration menu to search for the Xellerate Users organization and assign it to the IT Security Manager role. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: User Management Tasks

### **Prerequisite Tasks for Security Administration**

Sign into Oracle Fusion Applications for the first time with the Installation Super User account to synchronize LDAP users with HCM user management and create an IT security manager user account and provision it with the IT Security Manager role.

- The super user account is established during installation. Refer to the Oracle Fusion Applications Installation Guide.

See: Oracle Identity and Policy Management Configuration Parameters

- Synchronize LDAP users with HCM user management by performing the Run User and Roles Synchronization Process task. Monitor completion of the predefined Enterprise Scheduler job SyncRolesJob.
- Create a user account and provision it with roles. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: Managing Users

- As a security guideline, provision a dedicated security professional with the IT Security Manager role as soon as possible after initial security setup and revoke that role from users provisioned with the Application Implementation Consultant role. If entitled to do so, see Security Tasks and Oracle Fusion Applications: How They Fit Together for details about provisioning the IT security manager.

### **Required Security Administration Tasks**

Establish at least one implementation user and provision that user with sufficient access to set up the enterprise for all integrated Oracle Fusion Middleware and all application pillars or partitions.

- Perform the initial security tasks. If entitled to do so, see Initial Security Administration: Critical Choices.
- Sign in to Oracle Fusion Applications using the IT security manager's or administrator's user name and password, and create and provision users who manage your implementation projects and set up enterprise structures by performing the Create Implementation Users task. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: User Management Tasks

- Create a data role for implementation users who will set up HCM that grants access to data in secured objects required for performing HCM setup steps. Provision the implementation user with this View All data role. See "Creating an HCM Data Role: Worked Example."

- For an overview of security tasks from the perspective of an applications administrator, refer to the Oracle Fusion Applications Administrator's Guide

See: Securing Oracle Fusion Applications

### Optional Security Administration Tasks

Once initial security administration is complete and your enterprise is set up with structures such as business units, additional security administration tasks are optional and based on modifying and expanding the predefined security reference implementation to fit your enterprise. See points to consider for defining security, data security and trading partner security after enterprise setup.

- Create users. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: Creating Users

- Provision users with roles. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: Adding and Removing Roles

- You manage users and job roles, including data and abstract roles, in Oracle Identity Management user interface pages. Refer to the Oracle Fusion Middleware User's Guide for Oracle Identity Manager.

See: User Interfaces

- You manage duties, security policies, and data role templates in the Authorization Policy Manager. Refer to the Oracle Fusion Middleware Authorization Policy Manager Administrator's Guide (Oracle Fusion Applications Edition).

See: Managing Oracle Fusion Applications Data Security Policies

- You manage role provisioning rules in Human Capital Management (HCM). If entitled to do so, see Role Mappings: Explained.
- For a complete description of the Oracle Fusion Applications security reference implementation, see the Oracle Fusion Applications Security Reference Manuals for each offering.
- For a detailed functional explanation of the Oracle Fusion Applications security approach, refer to the following guides.

See: Oracle Fusion Applications Security Guide

See: Oracle Fusion Applications Security Hardening Guide

- Since security in Oracle Fusion Applications is based on integrations with Oracle Identity Management in Fusion Middleware, security features in the database, and Governance, Risk, Compliance, and Controls, additional resources in support of performing security tasks include the following.
  - Authorization Policy Manager (APM) is available in Oracle Fusion Applications through integration with Oracle Identity Management

(OIM). Authorization policy management involves managing duty roles, data role templates, and data security policies. Refer to the Oracle Fusion Middleware Authorization Policy Manager Administrator's Guide (Oracle Fusion Applications Edition).

See: Getting Started With Oracle Authorization Policy Manager

- Oracle Identity Management (OIM) is available in Oracle Fusion Applications through integration with Oracle Fusion Middleware. Identity management in Oracle Fusion Application involves creating and managing user identities, creating and linking user accounts, managing user access control through user role assignment, managing enterprise roles, and managing workflow approvals and delegated administration.

See: Oracle Fusion Middleware User's Guide for Oracle Identity Manager

- Oracle Fusion Applications is certified to integrate with Applications Access Controls Governor (AACG) in the Oracle Governance, Risk and Compliance Controls (GRCC) suite to ensure effective segregation of duties (SOD).

See: Oracle Application Access Controls Governor Users Guide

See: Oracle Application Access Controls Governor Implementation Guide

- Configure and manage auditing. Refer to the Oracle Fusion Middleware Application Security Guide.

See: Configuring and Managing Auditing

## Defining Security After Enterprise Setup: Points to Consider

After the implementation user has set up the enterprise, further security administration depends on the requirements of your enterprise.

The Define Security activity within the Information Technology (IT) Management business process includes the following tasks.

- Import Worker Users
- Import Partner Users
- Manage Job Roles
- Manage Duties
- Manage Application Access Controls

If no legacy users, user accounts, roles, and role memberships are available in the Lightweight Directory Access Protocol (LDAP) store, and no legacy workers are available in Human Resources (HR), the implementation user sets up new users and user accounts and provisions them with roles available in the Oracle Fusion Applications reference implementation.

If no legacy identities (workers, suppliers, customers) exist to represent people in your enterprise, implementation users can create new identities in Human

Capital Management (HCM), Supplier Portal, and Customer Relationship Management (CRM) Self Service, respectively, and associate them with users.

## Before Importing Users

Oracle Identity Management (OIM) handles importing users.

If legacy employees, contingent workers, and their assignments exist, the HCM Application Administrator imports these definitions by performing the Load Batch Data task. If user and role provisioning rules have been defined, the Load Batch Data process automatically creates user and role provisioning requests as the workers are created.

Once the enterprise is set up, performing the Load Batch Data task populates the enterprise with HR workers in records linked by global user ID (GUID) to corresponding user accounts in the LDAP store. If no user accounts exist in the LDAP store, the Load Batch Data task results in new user accounts being created. Worker email addresses as an alternate input for the Load Batch Data task triggers a search of the LDAP for user GUIDs, which may perform more slowly than entering user names.

In the security reference implementation, the HCM Application Administrator job role hierarchy includes the HCM Batch Data Loading Duty role, which is entitled to import worker identities. This entitlement provides the access necessary to perform the Load Batch Data task in HCM.

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### Note

The Import Person and Organization task in the Define Trading Community Import activity imports the following resources, creates users, and links the resources to users for use in CRM.

- Internal employees
- Contingent workers
- External partner contacts
- Partner companies
- Legal entities
- Customers
- Consumers

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If role provisioning rules have been defined, the Import Person and Organization task automatically provisions role requests as the users are created.

## Import Users

If legacy users (identities) and user accounts exist outside the LDAP store that is being used by the Oracle Fusion Applications installation, the IT security manager has the option to import these definitions to the LDAP store by performing the Import Worker Users and Import Partner Users tasks.

If no legacy users or user accounts can be imported or exist in an LDAP repository accessible to Oracle Identity Management (OIM), the IT security manager creates users manually in OIM or uses the Load Batch Data task to create users from imported HR workers.

Once users exist, their access to Oracle Fusion Applications is dependent on the roles provisioned to them in OIM or Human Capital Management. Use the Manage HCM Role Provisioning Rules task to define rules that determine what roles are provisioned to users.

Importing user identities from other applications, including other Oracle Applications product lines, is either a data migration or manual task. Migrating data from other Oracle Applications includes user data. For more information about importing users, see the Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager.

In the security reference implementation, the IT Security Manager job role hierarchy includes the HCM Batch Data Loading Duty and the Partner Account Administration Duty. These duty roles provide entitlement to import or create users. The entitlement Load Batch Data provides the access necessary to perform the Import Worker Users task in OIM. The entitlement Import Partner entitlement provides the access necessary to perform the Import Partner Users task in OIM.

## **Manage Job Roles**

Job and abstract roles are managed in OIM. This task includes creating and modifying job and abstract roles, but not managing role hierarchies of duties for the jobs.

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### **Note**

Manage Job Roles does not include provisioning job roles to users. Provisioning users is done in OIM, HCM, CRM or Oracle Fusion Supplier Portal.

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Roles control access to application functions and data. Various types of roles identify the functions performed by users.

The Oracle Fusion Applications security reference implementation provides predefined job and abstract roles. In some cases, the jobs defined in your enterprise may differ from the predefined job roles in the security reference implementation. The predefined roles and role hierarchies in Oracle Fusion may require changes or your enterprise may require you to create new roles. For example, you need a job role for a petty cash administrator, in addition to an accounts payable manager. The security reference implementation includes a predefined Accounts Payable Manager, and you can create a petty cash administrator role to extend the reference implementation.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Enterprise Role Management Duty role, which is entitled to manage job and abstract roles (the entitlement is Manage Enterprise Role). This entitlement provides the access necessary to perform the Manage Job Roles task in OIM.

## **Manage Duties**

A person with a job role must be able to perform certain duties. In the Oracle Fusion Applications security reference implementation, enterprise roles inherit duties through a role hierarchy. Each duty corresponds to a duty role. Duty roles

specify the duties performed within applications and define the function and data access granted to the enterprise roles that inherit the duty roles.

Managing duties includes assigning duties to job and abstract roles in a role hierarchy using Authorization Policy Manager (APM). If your enterprise needs users to perform some actions in applications coexistent with Oracle Fusion applications, you may wish to remove the duty roles that enable those actions. For details about which duty roles are specific to the products in an offering, see the Oracle Fusion Applications Security Reference Manual for each offering.

OIM stores the role hierarchy and the spanning of roles across multiple pillars or logical partitions of applications.

In cases where your enterprise needs to provide access to custom functions, it may be necessary to create or modify the duty roles of the reference implementation.

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**Tip**

As a security guideline, use only the predefined duty roles, unless you have added new applications functions. The predefined duty roles fully represent the functions and data that must be accessed by application users and contain all appropriate entitlement. The predefined duty roles are inherently without segregation of duty violations of the constraints used by the Application Access Controls Governor.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage duty roles (the entitlement is Manage Application Role). This entitlement provides the access necessary to perform the Manage Duties task in APM.

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**Note**

Product family administrators are not entitled to create role hierarchies or manage duty roles and must work with the IT security manager to make changes such as localizing a duty role to change a role hierarchy. Setup for localizations is documented in HCM documentation.

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**Manage Application Access Controls**

Prevent or limit the business activities that a single person may initiate or validate by managing segregation of duties policies in the Application Access Controls Governor (AACG) .

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**Note**

In AACG, segregation of duties policies are called access controls or segregation of duties controls.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Segregation of Duties Policy Management Duty role, which is entitled to manage segregation of duties policies (the entitlement is Manage Segregation of Duties Policy). This entitlement provides the access necessary to perform the Manage Application Access Controls task in AACG.

# Security Tasks and Oracle Fusion Applications: How They Fit Together

The major security tasks and their order within the context of an overall Oracle Fusion Applications implementation extend from security setup through production deployment audits.

The Oracle Fusion business process model (BPM) provides a sequence of security implementation tasks that includes the following.

- Security setup (Define Common Applications Configuration activity)
  - Define Implementation Users task group (optional)
    - Create Implementation Users task
    - Create Data Role for Implementation Users task
    - Provision Roles to Implementation Users task
  - Define security - tasks vary depending on deployed Oracle Fusion product family
    - Revoke Data Role from Implementation Users task
    - Import Worker Users task
    - Import Partner Users task
    - Manage Duties task
    - Manage Job Roles task
    - Manage Application Access Controls task
  - Define Automated Governance, Risk, and Performance Controls activity
    - Manage Application Access Controls task (AACG settings)
    - Manage Application Preventive Controls task
    - Manage Application Transaction Controls task
    - Manage Application Configuration Controls task
- User and role provisioning tasks
  - Implement Role Request and Provisioning Controls activity
    - Import Worker Users task
    - Import Partner Users task
    - Self Request User Roles task
    - Approve User and Role Provisioning Requests task

- Assign User Roles task
- Manage Supplier User Roles and User Role Usages task
- Map and Synchronize User Account Details task
- Tasks for viewing account details for self or others
- Tasks for applying and managing various role provisioning rules
- Tasks for running synchronization processes
- Security implementation and ongoing maintenance after setup (Manage IT Security activity)
  - Implement Function Security Controls
    - Create Job Role task
    - Import Worker Users task
    - Import Partner Users task
    - Manage Duties task
    - Manage Job Roles task
    - Manage Users task
  - Implement Data Security Controls
    - Manage Data Security Policies task
    - Manage Role Templates task
    - Manage Encryption Keys task
    - Manage Segment Security task
    - Manage Data Access Sets task
    - Define Security Profiles task group
  - Auditing tasks
    - Manage Security Audit, Compliance and Reporting activity
    - Manage Application Access Controls task

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### Note

Go live deployment does not require lockdown or specific security tasks because security is enforced across the test to production information life cycle.

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### Required Roles

The Oracle Fusion Applications installation process sets up a single, super user provisioned with the following enterprise roles.

- Application Implementation Consultant
- IT Security Manager
- Application Administrators for the provisioned products

Initial security administration includes provisioning the IT Security Manager role with Oracle Identity Management (OIM) roles that carry entitlement for user and role management.

- Identity User Administrator
- Role Administrator

Additionally, the Xellerate Users organization must be assigned to the IT Security Manager role.

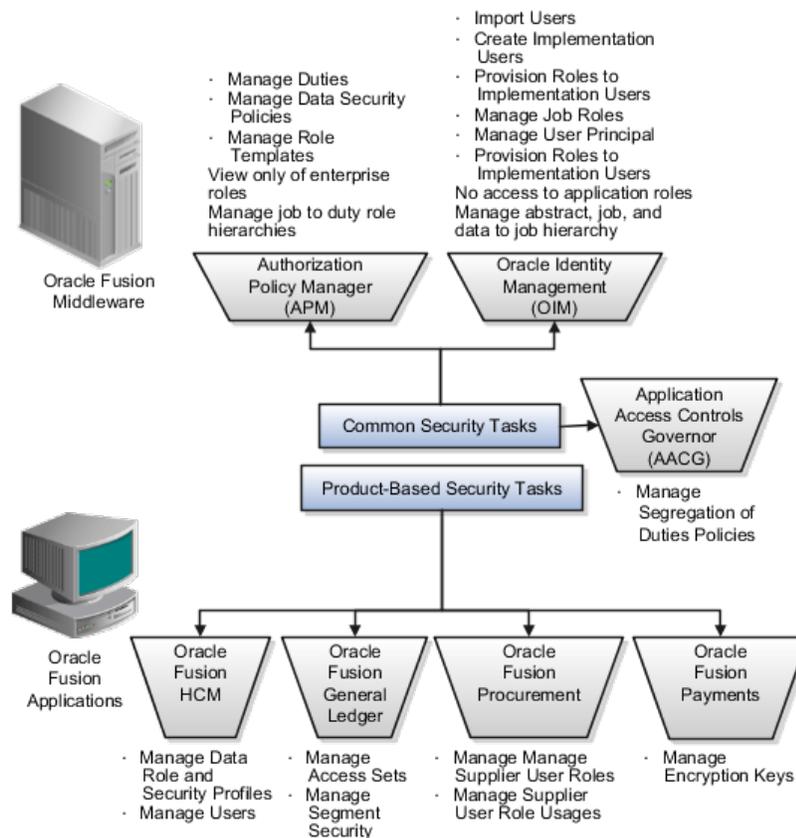
### Important

As a security guideline, provision a dedicated security professional with the IT Security Manager role at the beginning of an implementation, and revoke that role from users provisioned with the Application Implementation Consultant role.

### Tools Used to Perform Security Tasks

Security tasks are supported by tools within both Oracle Fusion Applications and Oracle Fusion Middleware.

The figure lists the tasks associated with each of the integrated products and pillars of an Oracle Fusion Applications deployment.



## Security Tasks: Overview

Security tasks span multiple business processes and are performed by various roles using numerous integrated tools.

The following table shows the business process model (BPM) tasks and tools used to support securing Oracle Fusion Applications.

Example Task	Oracle BPM Task	Supporting Tools	Details
View duty roles inherited by a job role	Manage Duties	<ul style="list-style-type: none"> <li>Authorization Policy Manager (APM)</li> </ul>	Each logical partition or pillar contains a collection of application roles, and function and data security policies.
View entitlement or policies carried by a job role	Manage Duties	<ul style="list-style-type: none"> <li>APM</li> </ul>	In LDAP, the policy store stores application roles and the identity store stores enterprise roles.
Add a job role to a role hierarchy	Manage Job Roles	<ul style="list-style-type: none"> <li>Oracle Identity Management (OIM)</li> </ul>	The identity store in LDAP stores enterprise roles.
Add a duty role to a role hierarchy	Manage Duties	<ul style="list-style-type: none"> <li>APM</li> </ul>	LDAP stores the role hierarchy and the spanning of roles across multiple pillars or logical partitions.
Create a hierarchy of enterprise (abstract, job, data) roles	Manage Job Roles	<ul style="list-style-type: none"> <li>OIM</li> </ul>	
Create a hierarchy of (application) duty roles	Manage Duties	<ul style="list-style-type: none"> <li>APM</li> </ul>	
Create a new job role	Manage Job Roles	<ul style="list-style-type: none"> <li>OIM</li> </ul>	The identity store in LDAP stores enterprise roles.
Change duty roles inherited by a job or abstract role	Manage Duties	<ul style="list-style-type: none"> <li>APM</li> </ul>	The policy store stores duty roles. The identity store stores enterprise roles. Some duty roles may enable actions and their associated users interface features that your enterprise does not want users to perform in Oracle Fusion applications.
Create a new duty role	Manage Duties	<ul style="list-style-type: none"> <li>APM</li> </ul>	All functions and actions in Oracle Fusion Applications that need to be secured are covered by the reference implementation. In some cases, especially with function customizations, a new duty role may be needed.

View Segregation of Duties (SOD) policies respected by a duty role	Manage Application Access Controls	<ul style="list-style-type: none"> <li>Application Access Controls Governor (AACG) in Governance, Risk, and Compliance Controls (GRCC)</li> </ul>	The Security Reference Manuals (SRM) document the segregation of duties (SOD) policies respected within each job role
View SOD policy violations carried by the duty roles inherited by a job role	Manage Application Access Controls	<ul style="list-style-type: none"> <li>AACG in GRCC</li> </ul>	The Security Reference Manuals (SRM) document the SOD policies respected within each job role
View SOD policy violations	Manage Segregation of Duties Policies	<ul style="list-style-type: none"> <li>AACG in GRC</li> </ul>	The SRM documents the SOD conflicts for each job role
View the data security policies carried by a job, abstract, and data roles	Manage Data Security Policies	<ul style="list-style-type: none"> <li>APM</li> </ul>	<p>Oracle Fusion Data Security stores data security policies in the policy store.</p> <p>Data security can also be defined in application pages provided by Oracle Middleware Extensions for Applications (FND)</p>
Create and update HCM security profiles	Manage Data Role and Security Profiles	<ul style="list-style-type: none"> <li>Oracle Fusion HCM</li> </ul>	This task does not include assigning data roles to the users, which is supported by user provisioning tasks.
Create (generate) a data role	<ol style="list-style-type: none"> <li>Manage Role Templates</li> <li>Manage Data Roles and Security Profiles</li> </ol>	<ul style="list-style-type: none"> <li>APM</li> <li>Oracle Fusion HCM</li> </ul>	<p>Data roles are generated automatically based on data role templates and enterprise setup. Changes to data role templates generate new or changed data roles.</p> <p>Create data roles in HCM using the Manage Data Roles and Security Profiles task.</p>
Create a new data security policy (not through generated data roles based on data role templates or HCM security profiles)	Manage Data Security Policies	<ul style="list-style-type: none"> <li>APM</li> </ul>	Data security can also be defined in application pages provided by Oracle Middleware Extensions for Applications (FND)
View data role templates defined by a product	Manage Role Templates	<ul style="list-style-type: none"> <li>APM</li> </ul>	
Create or edit an existing data role template	Manage Role Templates	<ul style="list-style-type: none"> <li>APM</li> </ul>	

Secure common objects such as attachment categories or profile options	Manage Data Security Policies	<ul style="list-style-type: none"> <li>• APM</li> </ul>	Data security can also be defined in application pages provided by Oracle Middleware Extensions for Applications (FND)
View, create, update encryption keys used to secure attributes of personally identifiable information	Manage Encryption Keys	<ul style="list-style-type: none"> <li>• Oracle Fusion Payments</li> </ul>	
View, create, update Data Access Sets used to secure Ledgers and Ledger Sets	Manage Data Access Sets	<ul style="list-style-type: none"> <li>• Oracle Fusion General Ledger</li> </ul>	
View, create, update accounting flexfield segment security rules	Manage Security Segments	<ul style="list-style-type: none"> <li>• Oracle Fusion General Ledger</li> </ul>	
View or update the set of job roles that can be provisioned to supplier users	Manage Supplier User Role	<ul style="list-style-type: none"> <li>• Supplier Portal</li> <li>• Sourcing</li> </ul>	These tools are in the Oracle Fusion Procurement product family
Determine the supplier job roles that the supplier self service administrator can provision to supplier users	Manage Supplier User Role Usages	<ul style="list-style-type: none"> <li>• Supplier Portal</li> <li>• Sourcing</li> </ul>	These tools are in the Oracle Fusion Procurement product family
Set default supplier job roles based on the set of supplier roles that are defined by performing the Manage Supplier User Roles task	Manage Supplier User Role Usages	<ul style="list-style-type: none"> <li>• Supplier Portal</li> <li>• Sourcing</li> </ul>	These tools are in the Oracle Fusion Procurement product family
Create a new implementation user	Create Implementation Users	<ul style="list-style-type: none"> <li>• OIM</li> </ul>	
Import legacy users	<ul style="list-style-type: none"> <li>• Import Worker Users</li> <li>• Import Partner Users</li> </ul>	<ul style="list-style-type: none"> <li>• OIM</li> </ul>	
Create a new user	Manage Users	<ul style="list-style-type: none"> <li>• HCM</li> </ul>	<p>HCM creates a new user and identity when a new worker is created. The Hire Employee and Add Contingent Worker tasks also result in new user creation requests.</p> <p>Creating a new user automatically triggers role provisioning requests based on role provisioning rules.</p>

Provision roles to a user	<ol style="list-style-type: none"> <li>1. Provision Roles to Implementation Users</li> <li>2. Manage Users</li> </ol>	<ul style="list-style-type: none"> <li>• OIM</li> <li>• Oracle Fusion HCM</li> <li>• Oracle Fusion CRM</li> <li>• Oracle Fusion Suppliers</li> </ul>	<p>Implementation users are provisioned through OIM since HCM is not setup at the start of the implementation. The Provision Roles to Implementation Users is not needed once implementation is complete.</p> <p>Once HCM is setup, HCM is used to provision roles to non-implementation users by performing the Manage Users task. Human Resources (HR) transaction flows such as Hire and Promote also provision roles.</p> <p>Once supplier users are setup, Supplier Model can be used by internal users to maintain supplier user accounts or supplier users can maintain their accounts in Supplier Portal.</p>
View the job, abstract, and data roles provisioned to a user	<ol style="list-style-type: none"> <li>1. Manage Users</li> <li>2. Manage User Principal</li> <li>3. Provision Roles to Implementation Users</li> </ol>	<ul style="list-style-type: none"> <li>• Human Capital Management (HCM)</li> <li>• OIM</li> </ul>	<p>LDAP stores users, roles and provisioning information.</p> <p>The Manage User Principal and Provision Roles to Implementation Users tasks are not needed once implementation is complete.</p>
Revoke role from user.	Manage Users	<ul style="list-style-type: none"> <li>• HCM</li> </ul>	You can revoke roles from various Human Resources task flows, the HCM Manage Users task and OIM. User termination includes role revocation.
Approve role provisioning or user account request.	Approve User and Role Provisioning Requests	<ul style="list-style-type: none"> <li>• OIM</li> </ul>	
View audit logs	Not applicable	<ul style="list-style-type: none"> <li>• Oracle Enterprise Manager</li> </ul>	Viewing audit logs is a Oracle Fusion Middleware function and not represented by an Oracle Fusion Applications BPM task.

For more information about provisioning identities and configuring audit policies, see the Oracle Fusion Applications Administrator's Guide.

There may be more than one navigation path to the graphical user interface in which the task is performed. You can access most security tasks by starting in the Setup and Maintenance Overview page and searching for security tasks and task lists.

## Define Data Security for CRM

### Data Security: Explained

By default, users are denied access to all data.

Data security makes data available to users by the following means.

- Policies that define grants available through provisioned roles
- Policies defined in application code

You secure data by provisioning roles that provide the necessary access. Enterprise roles provide access to data through data security policies defined for the inherited application roles.

When setting up the enterprise with structures such as business units, data roles are automatically generated that inherit job roles based on data role templates. Data roles also can be generated based on HCM security profiles. Data role templates and HCM security profiles enable defining the instance sets specified in data security policies.

When you provision a job role to a user, the job role implicitly limits data access based on the data security policies of the inherited duty roles. When you provision a data role to a user, the data role explicitly limits the data access of the inherited job role to a dimension of data.

Data security consists of privileges conditionally granted to a role and used to control access to the data. A privilege is a single, real world action on a single business object. A data security policy is a grant of a set of privileges to a principal on an object or attribute group for a given condition. A grant authorizes a role, the grantee, to actions on a set of database resources. A database resource is an object, object instance, or object instance set. An entitlement is one or more allowable actions applied to a set of database resources.

Data is secured by the following means.

Data security feature	Does what?
Data security policy	Grants access to roles by means of entitlement
Role	Applies data security policies with conditions to users through role provisioning.
Data role template	Defines the data roles generated based on enterprise setup of data dimensions such as business unit.

HCM security profile	Defines data security conditions on instances of object types such as person records, positions, and document types without requiring users to enter SQL code
Masking	Hides private data on non-production database instances
Encryption	Scrambles data to prevent users without decryption authorization from reading secured data

The sets of data that a user can access via roles are defined in Oracle Fusion Data Security. Oracle Fusion Data Security integrates with Oracle Platform Security Services (OPSS) to entitle users or roles (which are stored externally) with access to data. Users are granted access through the entitlement assigned to the roles or role hierarchy with which the user is provisioned. Conditions are WHERE clauses that specify access within a particular dimension, such as by business unit to which the user is authorized.

### Data Security Policies

Data security policies articulate the security requirement "Who can do What on Which set of data," where 'Which set of data' is an entire object or an object instance or object instance set and 'What' is the object entitlement.

For example, accounts payable managers can view AP disbursements for their business unit.

Who	can do	what	on which set of data
Accounts payable managers	view	AP disbursements	for their business unit

A data security policy is a statement in a natural language, such as English, that typically defines the grant by which a role secures business objects. The grant records the following.

- Table or view
- Entitlement (actions expressed by privileges)
- Instance set (data identified by the condition)

For example, disbursement is a business object that an accounts payable manager can manage by payment function for any employee expenses in the payment process.

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#### Note

Some data security policies are not defined as grants but directly in applications code. The security reference manuals for Oracle Fusion Applications offerings differentiate between data security policies that define a grant and data security policies defined in Oracle Fusion applications code.

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A business object participating in a data security policy is the database resource of the policy.

Data security policies that use job or duty roles refer to data security entitlement.

For example, the data security policy for the Accounts Payable Manager job role refers to the view action on AP disbursements as the data security entitlement.

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### **Important**

The duty roles inherited by the job role can be moved and job roles reassembled without having to modify the data security.

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As a security guideline, data security policies based on user session context should entitle a duty role. This keeps both function and data security policies at the duty role level, thus reducing errors.

For example, a Sales Party Management Duty can update Sales Party where the provisioned user is a member of the territory associated with the sales account. Or the Sales Party Management Duty can update Sales Party where the provisioned user is in the management chain of a resource who is on the sales account team with edit access. Or the Participant Interaction Management Duty can view an Interaction where the provisioned user is a participant of the Interaction.

For example, the Disbursement Process Management Duty role includes entitlement to build documents payable into payments. The Accounts Payable Manager job role inherits the Disbursement Process Management Duty role. Data security policies for the Disbursement Process Management Duty role authorize access to data associated with business objects such as AP disbursements within a business unit. As a result, the user provisioned with the Accounts Payable Manager job role is authorized to view AP disbursements within their business unit.

A data security policy identifies the entitlement (the actions that can be made on logical business objects or dashboards), the roles that can perform those actions, and the conditions that limit access. Conditions are readable WHERE clauses. The WHERE clause is defined in the data as an instance set and this is then referenced on a grant that also records the table name and required entitlement.

### **Data Roles**

Data roles are implemented as job roles for a defined set of data.

A data role defines a dimension of data within which a job is performed. The data role inherits the job role that describes the job. For example, a data role entitles a user to perform a job in a business unit.

The data role inherits abstract or job roles and is granted data security privileges. Data roles carry the function security privileges inherited from job roles and also the data security privilege granted on database objects and table rows.

For example, an accounts payables specialist in the US Business Unit may be assigned the data role Accounts Payables Specialist - US Business Unit. This data role inherits the job role Accounts Payables Specialist and grants access to transactions in the US Business Unit.

A data role may be granted entitlement over a set people.

For example, a Benefits Administrator A-E is allowed to administer benefits for all people that have a surname that begins with A-E.

Data roles are created using data role templates. You create and maintain data roles in the Authorization Policy Manager (APM). Use the Manage Data Roles and Security Profiles task to create and maintain HCM data roles in Oracle Fusion HCM.

### **HCM Security Profiles**

HCM security profiles are used to secure HCM data, such as people and departments. You use HCM security profiles to generate grants for an enterprise role. The resulting data role with its role hierarchy and grants operates in the same way as any other data role.

For example, an HCM security profile identifies all employees in the Finance division.

Oracle Fusion Payroll uses HCM security profiles to secure project organizations. Applications outside of HCM can use the HCM Data Roles UI pages to give their roles access to HR people.

### **Masking and Encryption**

Oracle Fusion Applications uses masking to protect sensitive data from view by unauthorized users. Encryption APIs mask sensitive fields in applications user interfaces. Additionally, Oracle Data Masking is available for masking data in non-production instances and Oracle Transparent Data Encryption is available for protecting data in transit or in backups independent of managing encryption keys.

## **Defining Data Security After Enterprise Setup: Points to Consider**

After the implementation user has set up the enterprise, further security administration depends on the requirements of your enterprise.

The Define Data Security activity within the Information Technology (IT) Management business process includes the following tasks.

- Manage Data Access Sets
- Manage Segment Security
- Manage Role Templates
- Manage Data Security Policies
- Manage Encryption Keys

These tasks address data security administration. For information on using the user interface pages for setting up and managing data security, see the Oracle Fusion Middleware Administrator's Guide for Authorization Policy Manager (Oracle Fusion Applications edition).

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**Note**

The Manage Data Role and Security Profiles task, and all other HCM security profile setup tasks are documented in Human Capital Management (HCM) documentation.

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**Manage Data Access Sets**

Data access sets define a set of access privileges to one or more ledgers or ledger sets.

The information on ledgers that are attached to data access sets are secured by function security. Users must have access to the segment values associated with the data access sets to access the corresponding GL account.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Data Access Administration Duty role, which is entitled to manage data access sets (the entitlement is Define General Ledger Data Access Set). This entitlement provides the access necessary to perform the Manage Data Access Sets task in General Ledger.

**Manage Segment Security**

Balancing or management segment values can secure data within a ledger.

Segment values are stored in GL\_ACCESS\_SET\_ASSIGNMENTS and secured by restrictions, such as Exclude, on parameters that control the set of values that a user can use during data entry.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Key Flexfield Administration Duty role, which is entitled to manage application key flexfields (the entitlement is Manage Application Key Flexfield). This entitlement provides the access necessary to perform the Manage Segment Security task in General Ledger.

**Manage Role Templates**

Data role templates automatically create or update data roles based on dimensions such as business unit. As an enterprise expands, data role templates trigger replication of roles for added dimensions. For example, when creating a new business unit, a data role template generates a new Accounts Payables Manager data role based on the Financials Common Module Template for Business Unit Security data role template.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage data role templates (the entitlement is Manage Role Template). This entitlement provides the access necessary to perform the Manage Role Templates task in APM.

**Manage Data Security Policies**

Data security grants provisioned to roles are data security policies. The security reference implementation provides a comprehensive set of predefined data

security policies and predetermined data security policies based on data role templates.

Data security policies are available for review in Authorization Policy Manager (APM). Data security policies are implemented by grants stored in Oracle Fusion Data Security (FND\_GRANTS).

Data security policies secure the database resources of an enterprise. Database resources are predefined applications data objects and should not be changed. However, for cases where custom database resources must be secured objects, the IT security manager is entitled to manage database resources and create new data security policies.

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### **Warning**

Review but do not modify HCM data security policies in APM except as a custom implementation. Use the HCM Manage Data Role And Security Profiles task to generate the necessary data security policies and data roles.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is entitled to manage data security policies (the entitlement is Manage Data Security Policy). This entitlement provides the access necessary to perform the Manage Data Security Policies task in APM.

### **Manage Encryption Keys**

Create or edit encryption keys held in Oracle Wallet to secure Personally Identifiable Information (PII) attributes This task is only available when Payments is implemented.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Payments Data Security Administration Duty role, which is entitled to manage encryption keys that secure PII (the entitlement is Manage Wallet). This entitlement provides the access necessary to perform the Manage Encryptions Keys task in Payments.

## **Data Security in the Security Reference Implementation: Explained**

The reference implementation contains a set of data security policies that can be inspected and confirmed to be suitable or a basis for further implementation using the Authorization Policy Manager (APM).

The security implementation of an enterprise is likely a subset of the reference implementation, with the enterprise specifics of duty roles, data security policies, and HCM security profiles provided by the enterprise.

The business objects registered as secure in the reference implementation are database tables and views.

Granting or revoking object entitlement to a particular user or group of users on an object instance or set of instances extends the base Oracle Fusion Applications

security reference implementation without requiring customization of the applications that access the data.

## **Data Security Policies in the Security Reference Implementation**

The data security policies in the reference implementation entitle the grantee (a role) to access instance sets of data based on SQL predicates in a WHERE clause.

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### **Tip**

When extending the reference implementation with additional data security policies, identify instance sets of data representing the business objects that need to be secured, rather than specific instances or all instances of the business objects.

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Predefined data security policies are stored in the data security policy store, managed in the Authorization Policy Manager (APM), and described in the Oracle Fusion Applications Security Reference Manual for each offering. A data security policy for a duty role describes an entitlement granted to any job role that includes that duty role.

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### **Warning**

Review but do not modify HCM data security policies in APM except as a custom implementation. Use the HCM Manage Data Role And Security Profiles task to generate the necessary data security policies and data roles.

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The reference implementation only enforces a portion of the data security policies in business intelligence that is considered most critical to risk management without negatively affecting performance. For performance reasons it is not practical to secure every level in every dimension. Your enterprise may have a different risk tolerance than assumed by the security reference implementation.

## **HCM Security Profiles in the Security Reference Implementation**

The security reference implementation includes some predefined HCM security profiles for initial usability. For example, a predefined HCM security profile allows line managers to see the people that report to them.

The IT security manager uses HCM security profiles to define the sets of HCM data that can be accessed by the roles that are provisioned to users

## **Data Roles**

The security reference implementation includes no predefined data roles to ensure a fully secured initial Oracle Fusion Applications environment.

The security reference implementation includes data role templates that you can use to generate a set of data roles with entitlement to perform predefined business functions within data dimensions such as business unit. Oracle Fusion Payables invoicing and expense management are examples of predefined

business functions. Accounts Payable Manager - US is a data role you might generate from a predefined data role template for payables invoicing if you set up a business unit called US.

HCM provides a mechanism for generating HCM related data roles.

## Securing Data Access: Points to Consider

Oracle Fusion Applications supports securing data through role-based access control (RBAC) by the following methods.

Method of securing data	Reason	Example
Data roles apply explicit data security policies on job and abstract roles	Appropriate for job and abstract roles that should only access a subset of data, as defined by the data role template that generates the data role or by HCM security profiles.	Accounts Payable Manager - US data role to provide an accounts payable manager in the US business unit with access to invoices in the US business unit.
Data security policies	Define data access for application roles and provide inheriting job and abstract roles with implicit data security	Projects

If a user has access to the same function through different roles that access different data sets, then the user has access to a union of those data sets.

When a runtime session is created, Oracle Platform Security Services (OPSS) propagates only the necessary user to role mapping based on Oracle Fusion Data Security grants. A grant can specify entitlement to the following.

- Specific rows of data (data object) identified by primary key
- Groups of data (instance set) based on a predicate that names a particular parameter
- Data objects or instance sets based on runtime user session variables

Data is either identified by the primary key value of the row in the table where the data is stored. Or data is identified by a rule (SQL predicate) applied to the WHERE clause of a query against the table where the data is stored.

### Grants

Oracle Fusion Data Security can be used to restrict the following.

- Rows that are returned by a given query based on the intended business operation
- Actions that are available for a given row

Grants control which data a user can access.

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### Note

Attribute level security using grants requires a data security policy to secure the attribute and the entitlement check enforces that policy.

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A grant logically joins a user or role and an entitlement with a static or parameterized object instance set. For example, `REGION='WEST'` is a static object instance set and `REGION=&GRANT_ALIAS.PARAMETER1` is a parameterized object instance set. In the context of a specific object instance, grants specify the allowable actions on the set of accessible object instances. In the database, grants are stored in `FND_GRANTS` and object instance sets are stored in `FND_OBJECT_INSTANCE_SETS`. Object access can be tested using the privilege check application programming interface (API).

### **Securing a Business Object**

A business object is a logical entity that is typically implemented as a table or view, and corresponds to a physical database resource. The data security policies of the security reference implementation secure predefined database resources. Use the Manage Data Security Policies task to define and register other database resources.

Data security policies identify sets of data on the registered business object and the actions that may be performed on the business object by a role. The grant can be made by data instance, instance set or at a global level..

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#### **Note**

Use parameterized object instance sets whenever feasible to reduce the number of predicates the database parses and the number of administrative intervention required as static object instances sets become obsolete. In HCM, security profiles generate the instance sets.

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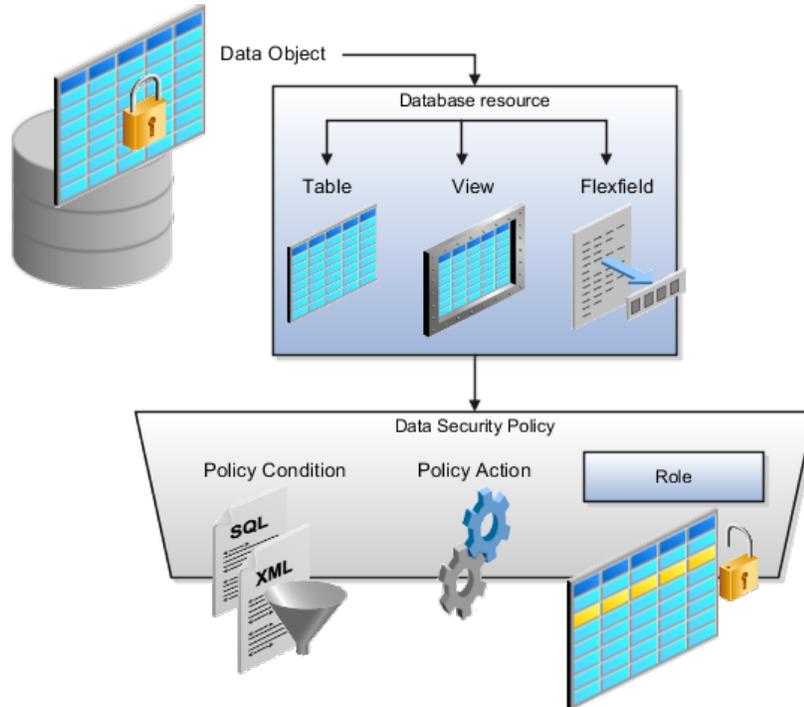
## **Manage Data Security Policies**

### **Database Resources and Data Security Policies: How They Work Together**

A data security policy applies a condition and allowable actions to a database resource for a role. When that role is provisioned to a user, the user has access to data defined by the policy. In the case of the predefined security reference implementation, this role is always a duty role. Data roles generated to inherit the job role based on data role templates limit access to database resources in a particular dimension, such as the US business unit.

The database resource defines and instance of a data object. The data object is a table, view, or flexfield.

The following figure shows the database resource definition as the means by which a data security policy secures a data object. The database resource names the data object. The data security policy grants to a role access to that database resource based on the policy's action and condition.



## Database Resources

A database resource specifies access to a table, view, or flexfield that is secured by a data security policy.

- Name providing a means of identifying the database resource
- Data object to which the database resource points

## Data Security Policies

Data security policies consist of actions and conditions for accessing all, some, or a single row of a database resource.

- Condition identifying the instance set of values in the data object
- Action specifying the type of access allowed on the available values

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### Note

If the data security policy needs to be less restrictive than any available database resource for a data object, define a new data security policy.

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## Actions

Actions correspond to privileges that entitle kinds of access to objects, such as view, edit, or delete. The actions allowed by a data security policy include all or a subset of the actions that exist for the database resource.

## Conditions

A condition is either a SQL predicate or an XML filter. A condition expresses the values in the data object by a search operator or a relationship in a tree hierarchy. A SQL predicate, unlike an XML filter, is entered in a text field in the data security user interface pages and supports more complex filtering than an

XML filter, such as nesting of conditions or sub queries. An XML filter, unlike a SQL predicate, is assembled from choices in the UI pages as an AND statement.

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**Tip**

An XML filter can be effective in downstream processes such as business intelligence metrics. A SQL predicate cannot be used in downstream metrics.

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## Manage Role Templates

### Data Role Templates: Explained

You use data role templates to generate data roles. You generate such data roles, and create and maintain data role templates in the Authorization Policy Manager (APM).

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**Note**

HCM data roles are generated using the Manage Data Roles and Security Profiles task, which uses HCM security profiles, not data role templates, to define the data security condition.

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The following attributes define a data role template.

- Template name
- Template description
- Template group ID
- Base roles
- Data dimension
- Data role naming rule
- Data security policies

The data role template specifies which base roles to combine with which dimension values for a set of data security policies. The base roles are the parent job or abstract roles of the data roles.

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**Note**

Abstract, job, and data roles are enterprise roles in Oracle Fusion Applications. Oracle Fusion Middleware products such as Oracle Identity Manager (OIM) and Authorization Policy Manager (APM) refer to enterprise roles as external roles. Duty roles are implemented as application roles in APM and scoped to individual Oracle Fusion Applications.

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The dimension expresses stripes of data, such as territorial or geographic information you use to partition enterprise data. For example, business units are a type of dimension, and the values picked up for that dimension by the data role template as it creates data roles are the business units defined for your enterprise. The data role template constrains the generated data roles with grants of entitlement to access specific data resources with particular actions. The data role provides provisioned users with access to a dimensional subset of the data granted by a data security policy.

An example of a dimension is a business unit. An example of a dimension value is a specific business unit defined in your enterprise, such as US. An example of a data security policy is a grant to access a business object such as an invoice with a view entitlement.

When you generate data roles, the template applies the values of the dimension and participant data security policies to the group of base roles.

The template generates the data roles using a naming convention specified by the template's naming rule. The generated data roles are stored in the Lightweight Directory Access Protocol (LDAP) store. Once a data role is generated, you provision it to users. A user provisioned with a data role is granted permission to access the data defined by the dimension and data security grant policies of the data role template.

For example, a data role template contains an Accounts Payable Specialist role and an Accounts Payable Manager role as its base roles, and region as its dimension, with the dimension values US and UK. The naming convention is [base-role-name];[DIMENSION-CODE-NAME]. This data role template generates four data roles.

- Accounts Payable Specialist - US (business unit)
- Accounts Payable Specialist - UK (business unit)
- Accounts Payable Manager - US (business unit)
- Accounts Payable Manager - UK (business unit)

## **Making Changes To Data Role Templates**

If you add a base role to an existing data role template, you can generate a new set of data roles. If the naming rule is unchanged, existing data roles are overwritten.

If you remove a base role from a data role template and regenerate data roles, a resulting invalid role list gives you the option to delete or disable the data roles that would be changed by that removal.

## **Making Changes to Dimension Values**

If you add a dimension value to your enterprise that is used by a data role template, you must regenerate roles from that data role template to create a data role for the new dimension. For example if you add a business unit to your enterprise, you must regenerate data roles from the data role templates that include business unit as a dimension.

If you add or remove a dimension value from your enterprise that is used to generate data roles, regenerating the set of data roles adds or removes the data roles for those dimension values. If your enterprise has scheduled regeneration as an Oracle Enterprise Scheduler Services process, the changes are made automatically.

For information on working with data role templates, see the Oracle Fusion Middleware Administrator's Guide for Authorization Policy Manager (Oracle Fusion Applications Edition).

## Manage Data Role and Security Profiles

### HCM Data Roles: Explained

HCM data roles, like all Oracle Fusion Applications data roles, define data security policies: they enable users to perform a set of tasks, using identified menus, menu items, and pages in application user interfaces, on a specified set of data within those user interfaces. Because data roles are specific to the enterprise, no predefined HCM data roles exist.

#### How HCM Data Roles Differ from Other Data Roles

HCM data roles differ from other data roles in the following ways:

- You create and maintain HCM data roles outside Oracle Identity Management (OIM) and the Oracle Fusion Middleware Authorization Policy Manager (APM), and they are not based on data role templates.

Although HCM data roles are visible in the Oracle Fusion Middleware APM, they must not be maintained there.

- A single HCM data role can enable access to data of multiple types.

You identify the data that users can access in HCM security profiles. You can create security profiles for the person, organization, position, country, legislative data group (LDG), document type, payroll, payroll flow, and workforce business process objects.

#### Selecting the Job Role

Each HCM data role is associated with a single job role, which you select from the list of enterprise roles. The HCM securing objects that the selected role needs to access are identified automatically, and the appropriate types of security profile are displayed. For example, if you select the job role human resource analyst, users with that job role need to access managed person, public person, organization, position, LDG, and document type data; therefore, security profiles for those object types must be included in the HCM data role. The security profile types that appear in the HCM data role vary according to the data requirements of the selected job role.

If you select a job role that requires no access to HCM data secured by security profiles, you cannot create an HCM data role.

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#### Note

If you create custom job roles in OIM, you must add them to a locally defined role category that ends with "Job Roles"; otherwise, they do not appear in the list of job roles when you create an HCM data role. Do not add custom job roles to the predefined role category HCM - Job Roles.

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#### Creating or Selecting the Security Profiles

You can either create new security profiles or use existing security profiles. For each object type, you can include only one security profile in an HCM data role.

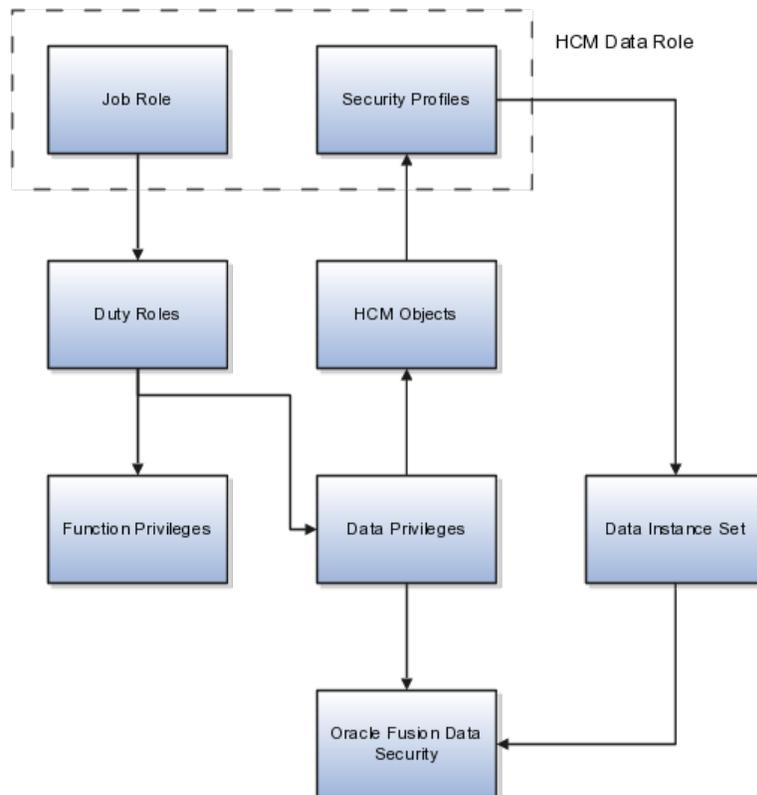
## Users with Multiple HCM Data Roles

When users have multiple HCM data roles, the data security policies arising from each role remain separate. For example, being able to promote or terminate workers in the purchasing department in one HCM data role and view contact details of all workers in the sales department in another HCM data role does not enable a user to promote or terminate workers in the sales department.

## Components of the HCM Data Role

The following figure summarizes how the components of the HCM data role contribute to Oracle Fusion Data Security for the data role. Oracle Fusion Data Security comprises the data security policies for data roles that are generated automatically when data roles are created.

The job role that you select in the HCM data role inherits multiple duty roles. Each duty role has one or more function privileges and related data privileges, from which the relevant HCM objects are identified. The specific instances of the objects required by this HCM data role are identified in security profiles and stored in a data instance set. Data security policy data is created automatically in Oracle Fusion Data Security when you create the data role.



For example, the human resource specialist job role inherits the employee hire and worker promotion duty roles, among many others. The inherited duty roles provide both function privileges, such as Hire Employee, Rehire Employee, and Promote Workers, and data privileges to HCM objects, such as person and assignment. The specific instances of those objects required by this HCM data role, such as people with assignments in a specified legal employer and department, are identified in security profiles.

## HCM Security Profiles: Explained

A security profile defines the criteria that identify instances of a human capital management (HCM) object. For example, a person security profile defines the criteria that identify one or more person records, and a position security profile defines the criteria that identify one or more positions. When you include a security profile in an HCM data role and provision the data role to a user, that user can access the data instances identified in the security profile. The type of access available to the user (for example whether the user can edit or simply view the data) depends on the job role identified in the HCM data role.

### HCM Object Types

You can create security profiles for the following HCM object types:

- Person
  - Managed person
  - Public person
- Organization
- Position
- Legislative data group (LDG)
- Country
- Document type
- Payroll
- Payroll flow
- Workforce business process

All security profile definitions for these HCM objects are eventually visible in the Oracle Fusion Middleware Authorization Policy Manager (APM). The name of the security profile's data instance set in the Oracle Fusion Middleware APM is derived from the name of the security profile and the relevant object type. For example, if the security profile name is Manager Hierarchy, then the data instance set for the object PER\_ALL\_PEOPLE\_F is HCM:PER:PER\_ALL\_PEOPLE\_F:Manager Hierarchy.

You must use the Oracle Fusion Human Capital Management interfaces, which are designed for ease of use and access, to create and maintain security profiles; do not use the Oracle Fusion Middleware APM to maintain security profiles for these HCM objects.

### Security Criteria in HCM Security Profiles

In any HCM security profile, you specify the criteria that identify data instances of the relevant type. For example, in an organization security profile, you can identify organizations by organization hierarchy, by organization classification, or by listing organizations to include in or exclude from the security profile. All of the criteria in an HCM security profile apply when the data instance set is defined; for example, if you identify organizations by both organization

hierarchy and organization classification, then both sets of criteria apply, and only those organizations that satisfy all criteria belong to the data instance set.

### Predefined HCM Security Profiles

The following HCM security profiles are predefined:

Security Profile Name	HCM Security Profile Type	Description
View All People	Person	Identifies all person records in the enterprise
View Own Record	Person	Identifies the signed-on user's own person record and the person records of that user's contacts
View Manager Hierarchy	Person	Identifies the signed-on user's line manager hierarchy
View All Workers	Person	Identifies the person records of all people who have a work relationship in the enterprise
View All Organizations	Organization	Identifies all organizations in the enterprise
View All Positions	Position	Identifies all positions in the enterprise
View All Legislative Data Groups	LDG	Identifies all LDGs in the enterprise
View All Countries	Country	Identifies all countries in the FND_TERRITORIES table
View All Document Types	Document Type	Identifies all document types in the enterprise
View All Payrolls	Payroll	Identifies all payrolls in the enterprise
View All Flows	Payroll Flow	Identifies all payroll flows in the enterprise
View All Workforce Business Processes	Workforce Business Process	Identifies all registered workforce business processes in the enterprise

You can include the predefined security profiles in any HCM data role, but you cannot edit them. Note also that the **View all** option is disabled in any security profile that you create; this restriction exists because predefined security profiles exist for this requirement.

### Creating Security Profiles

You can create security profiles either individually or as part of the process of creating an HCM data role. If you have standard requirements, it may be more efficient to create the security profiles individually and include them in appropriate HCM data roles.

### Reusability and Inheritance of Security Profiles

Regardless of how you create them, all security profiles are reusable; they do not belong to particular HCM data roles, and you can include them in any HCM data role for which they define an appropriate data instance set.

You can include security profiles in other security profiles. For example, you can include an organization security profile:

- In a person security profile, to secure person records by department, business unit, or legal employer
- In a position security profile, to secure positions by department or business unit

Therefore, one security profile can inherit the data instance set defined by another.

## Assigning Security Profiles to Abstract Roles: Explained

Abstract roles define a worker's role in the enterprise independently of the job that the worker is hired to do.

These abstract roles are predefined in Oracle Fusion Human Capital Management:

- Line manager
- Employee
- Contingent worker

### Enabling Data Access for Abstract Roles

Typically, you create role mappings during implementation to provision abstract roles automatically to eligible workers. Although users with these roles may be able to sign in to Oracle Fusion Applications and navigate to tasks of interest, they have no automatic access to data. For example, employees can navigate to the Person Gallery but cannot view portraits or see lists of person names in product interfaces, and line managers can navigate to the Manager Resources Dashboard but can see no data for their organizations. To enable users with abstract roles to access relevant HCM data, you must assign security profiles to those abstract roles.

### Predefined Security Profiles to Assign to Abstract Roles

To enable users with abstract roles to access relevant data, you assign the following predefined security profiles directly to the employee, contingent worker, and line manager abstract roles.

Security Profile Type	Employee	Contingent Worker	Line Manager
Person	View Own Record	View Own Record	View Manager Hierarchy
Public person	View All Workers	View All Workers	View All Workers
Organization	View All Organizations	View All Organizations	View All Organizations
Position	View All Positions	View All Positions	View All Positions
Legislative data group	View All Legislative Data Groups	View All Legislative Data Groups	View All Legislative Data Groups
Country	View All Countries	View All Countries	View All Countries
Document type	View All Document Types	View All Document Types	View All Document Types
Payroll Flow	Not applicable	Not applicable	View All Flows

Workforce Business Process	Not applicable	Not applicable	View All Workforce Business Processes
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After implementation, you may want to change aspects of this data access. For example, you may want to create your own security profiles and assign those directly to abstract roles; however, you must remember that such changes apply to all users who have the abstract role.

### HCM Data Roles

Users who have abstract roles are likely to gain additional data access by means of HCM data roles that you define for their job roles. For example, you may create an HCM data role for human resource specialists to enable them to access the person records of all workers in a legal employer. Such data access is in addition to any data access provided by abstract roles.

### Assigning Security Profiles to Abstract Roles: Worked Example

This example shows how to assign predefined security profiles to the employee, contingent worker, and line manager abstract roles.

#### Searching for the Employee Abstract Role

1. On the All Tasks tab of the Overview page of the Setup and Maintenance work area, search for the task Manage Data Role and Security Profiles.
2. In the Search Results region, click **Go to Task**.
3. On the Manage Data Roles and Security Profiles page, enter the abstract-role name Employee in the **Role** field. Click **Search**.
4. In the Search Results region, highlight the entry for the predefined Employee role and click **Assign**.

#### Assigning Security Profiles to the Employee Abstract Role

1. On the Assign Data Role: Security Criteria page, select the security-profile values shown in the following table. These are the security profiles that are typically assigned to the employee role. You may see a subset of these security profiles, depending on the combination of product offerings that you are implementing.

Field	Value
Organization Security Profile	View All Organizations
Position Security Profile	View All Positions
Country Security Profile	View All Countries
LDG Security Profile	View All Legislative Data Groups
Person Security Profile (Person section)	View Own Record
Person Security Profile (Public Person section)	View All Workers
Document Type Security Profile	View All Document Types

2. Click **Review**.
3. On the Assign Data Role: Review page, click **Submit**.
4. On the Manage Data Roles and Security Profiles page, search again for the predefined Employee role.
5. In the Search Results region, confirm that a green check mark appears in the **Security Profiles** column for the Employee role. The check mark confirms that security profiles are assigned to the role.

Repeat the steps in Searching for the Employee Abstract Role and Assigning Security Profiles to the Employee Abstract Role for the predefined Contingent Worker role.

### Searching for the Line Manager Abstract Role

1. On the Manage Data Roles and Security Profiles page, enter the abstract-role name Line Manager in the **Role** field. Click **Search**.
2. In the Search Results region, highlight the entry for the predefined Line Manager role and click **Assign**.

### Assigning Security Profiles to the Line Manager Abstract Role

1. On the Assign Data Role: Security Criteria page, select the security-profile values shown in the following table. These are the security profiles that are typically assigned to the line manager role. You may see a subset of these security profiles, depending on the combination of product offerings that you are implementing.

Field	Value
<b>Organization Security Profile</b>	View All Organizations
<b>Position Security Profile</b>	View All Positions
<b>LDG Security Profile</b>	View All Legislative Data Groups
<b>Person Security Profile</b> (Person section)	View Manager Hierarchy
<b>Person Security Profile</b> (Public Person section)	View All Workers
<b>Document Type Security Profile</b>	View All Document Types
<b>Payroll Flow</b>	View All Flows
<b>Workforce Business Process</b>	View All Workforce Business Processes

2. Click **Review**.
3. On the Assign Data Role: Review page, click **Submit**
4. On the Manage Data Roles and Security Profiles page, search again for the predefined Line Manager role.
5. In the search results, confirm that a green check mark appears in the **Security Profiles** column for the Line Manager role. The check mark confirms that security profiles are assigned to the role.

## Define Users for CRM

### Securing Identities and Users: Points To Consider

Identity covers all aspects of an entity's existence within the contexts in which it is used. The identity of an enterprise user consists of HR attributes, roles, resources, and relationships.

HR attributes include identifying information about a user that is relatively static and well understood, such as first and last name, title, and job function.

Roles are part of a user's identity and define the user's purpose and responsibilities.

Within identity management, resources define what a user can and does do. In an enterprise, this typically translates into what resources a user has access to, what privileges they have on that resource, and what they have been doing on that resource. Resources can be application accounts or physical devices such as laptops or access cards. The enterprise owns the resources, secures them, and manages access to the resources by managing the user's identity and access.

Relationships establish the portion of user identities that involve organizational transactions such as approvals.

An Oracle Fusion Applications user and corresponding identity are usually created in a single transaction, such as when a worker is created in Human Resources (HR). That transaction automatically triggers provisioning requests for the user based on role provisioning rules.

User accounts for some identities that are not employees, such as partner contacts, may be created in a later transaction using an identity that is already created in the identity store. Supplier contacts are created in the Supplier Model, not HR.

#### Stores

Various locations store identity and user data.

Identity data consists of the following.

- HR person records
- Oracle Fusion Trading Community Model party records

In Oracle Fusion Applications, identities and users correspond one to one, but not all identities correspond to a user, and not all users are provisioned with an identity. Some identities stored in HR and Trading Community Model may not be provisioned to user accounts and therefore are not synchronized with Oracle Identity Management (OIM). For example, a contact for a prospective customer is an identity in Trading Community Model but may not be provisioned with a user account in OIM. Some users stored in the Lightweight Directory Access Protocol (LDAP) store may not be provisioned with identities. For example,

system user accounts used to run Web services to integrate third party services with Oracle Fusion Applications are not associated with a person record in HR or Trading Community Model. Some identifying credentials such as name, department, e-mail address, manager, and location are stored with user data in the LDAP store.

## Importing Users

You can import users or user attributes in bulk from existing legacy identity and user stores.

Your tasks may include the following.

- Create users in bulk
- Update specific attributes for all users, such as postal code
- Link users to HR or Trading Community Model persons
- Monitor progress of the import process
- Correct errors & re-import
- Export users in bulk
- Import and export users using a standard plain text data interchange format like Lightweight Data Interchange Format (LDIF)

You can reserve a specific user name not currently in use for use in the future, or release a reserved username from the reservation list and make it available for use. Between a user registration request and approved registration, Oracle Fusion Applications holds the requested user name on the reservation list, and releases the name if an error occurs in the self-registration process or the request is rejected. Self-registration processes check the reservation list for user name availability and suggest alternative names.

## Provisioning Events

New identities, such as new hires, trigger user and role provisioning events. In addition to user creation tasks, other tasks, such as Promote Worker or Transfer Worker, result in role provisioning and recalculation based on role provisioning rules.

When an identity's attributes change, you may need to provision the user with different roles. Role assignments may be based on job codes, and a promotion triggers role provisioning changes. Even if the change in the identities attributes requires no role assignment change, such as with a name change, OIM synchronizes the corresponding user information in the LDAP store.

Deactivating or terminating an identity triggers revocation of some roles to end all assignments, but may provision new roles needed for activities, such as a pay stub review. If the corresponding user for the identity was provisioned with a buyer role, terminating the identity causes the user's buyer record in

Procurement to be disabled, just as the record was created when the user was first provisioned with the buyer role.

## **Notifications and Audits**

Oracle Fusion Applications provides mechanisms for notifying and auditing requests or changes affecting identities and users.

Oracle Fusion Applications notifies requestors, approvers, and beneficiaries when a user account or role is provisioned. For example, when an anonymous user registers as a business-to-customer (B2C) user, the B2C user must be notified of the registration activation steps, user account, password and so on once the approver (if applicable) has approved the request and the user is registered in the system.

User ID and GUID attributes are available in Oracle Fusion Applications session information for retrieving authenticated user and identity data.

End user auditing data is stored in database WHO columns and used for the following activities.

- Setting up sign-in audit
- Using the application monitor
- Notifying of unsuccessful sign ins
- Sign-in audit reports

You can conduct real time audits that instantiate a runtime session and impersonate the target user (with the proxy feature) to test what a user has access to under various conditions such as inside or outside firewall and authentication level.

For information on configuring audit policies and the audit store, see the Oracle Fusion Applications Administrator's Guide.

## **Delegated Administration**

You can designate local administrators as delegated administrators to manage a subset of users and roles.

Delegated administrators can be internal or external persons who are provisioned with a role that authorizes them to handle provisioning events for a subset of users and roles.

For example, internal delegated administrators could be designated to manage users and roles at the division or department level. External delegated administrators could be designated to manage users and roles in an external organization such as a primary supplier contact managing secondary users within that supplier organization.

You can also define delegated administration policies based on roles. You authorize users provisioned with specific roles named in the policy to request a subset of roles for themselves if needed, such as authorizing a subset of roles for

a subset of people. For example, the policy permits a manager of an Accounts Payables department to approve a check run administrator role for one of their subordinates, but prohibits the delegated administrator from provisioning a budget approver role to the subordinate.

## **Credentials**

You activate or change credentials on users by managing them in Oracle Identity Management (OIM)

Applications themselves must be credentialed to access one another.

Oracle Fusion Applications distinguishes between user identities and application identities (APPID). Predefined application identities serve to authorize jobs and transactions that require higher privileges than users.

For example, a payroll manager may submit a payroll run. The payroll application may need access to the employee's taxpayer ID to print the payslip. However, the payroll manager is not authorized to view taxpayer IDs in the user interface as they are considered personally identifiable information (PII).

Calling applications use application identities (APPID) to enable the flow of transaction control as it moves across trust boundaries. For example, a user in the Distributed Order Orchestration product may release an order for shipping. The code that runs the Pick Notes is in a different policy store than the code that releases the product for shipment. When the pick note printing program is invoked it is the Oracle Fusion Distributed Order Orchestration Application Development Framework (ADF) that is invoking the program and not the end user.

## **Manage HCM Role Provisioning Rules**

### **Role Provisioning and Deprovisioning: Explained**

A user's access to data and functions depends on the user's roles: users have one or more roles that enable them to perform the tasks required by their jobs or positions. Roles must be provisioned to users; otherwise, users have no access to data or functions.

#### **Role Provisioning Methods**

Roles can be provisioned to users:

- Automatically
- Manually, using delegated administration:
  - Users such as line managers and human resource specialists can provision roles manually to other users.
  - Users can request roles for themselves.

For both automatic and manual role provisioning, you create a role mapping to identify when a user becomes eligible for a role.

Oracle Identity Management (OIM) can be configured to notify users when their roles change; notifications are not issued by default.

## **Role Types**

Data roles, abstract roles, and job roles can be provisioned to users. Roles available for provisioning include predefined roles, HCM data roles, and roles created using OIM.

## **Automatic Role Provisioning**

A role is provisioned to a user automatically when at least one of the user's assignments satisfies the conditions specified in the relevant role-mapping definition. The provisioning occurs when the assignment is either created or updated. For example, when a person is promoted to a management position, the line manager role is provisioned automatically to the person if an appropriate role mapping exists. Any change to a person's assignment causes the person's automatically provisioned roles to be reviewed and updated as necessary.

## **Role Deprovisioning**

Automatically provisioned roles are deprovisioned automatically as soon as a user no longer satisfies the role-mapping conditions. For example, a line manager role that is provisioned to a user automatically is deprovisioned automatically when the user ceases to be a line manager.

Automatically provisioned roles can be deprovisioned manually at any time.

Manually provisioned roles are deprovisioned automatically only when all of the user's work relationships are terminated; in all other circumstances, users retain manually provisioned roles until they are deprovisioned manually.

## **Changes to Assignment Managers**

When a person's line manager is changed, the roles of both new and previous line managers are updated as necessary. For example, if the person's new line manager now satisfies the conditions in the role mapping for the line manager role, and the role is one that is eligible for autoprovisioning, then that role is provisioned automatically to the new line manager. Similarly, if the previous line manager no longer satisfies the conditions for the line manager role, then that role is deprovisioned automatically.

## **Roles at Termination**

When a work relationship is terminated, all automatically provisioned roles for which the user does not qualify in other work relationships are deprovisioned automatically. Manually provisioned roles are deprovisioned automatically only if the user has no other work relationships; otherwise, the user retains all manually provisioned roles until they are deprovisioned manually.

Automatic deprovisioning can occur either as soon as the termination is submitted or approved or on the day after the termination date. The user who is terminating the work relationship selects the appropriate deprovisioning date.

Role mappings can provision roles to users automatically at termination. For example, the locally defined roles Retiree and Beneficiary could be provisioned to users at termination based on assignment status and person type values.

If a termination is later reversed, roles that were deprovisioned automatically at termination are reinstated and post-termination roles are deprovisioned automatically.

### Date-Effective Changes to Assignments

Automatic role provisioning and deprovisioning are based on current data. For a future-dated transaction, such as a future promotion, role changes are identified and role provisioning occurs on the day the changes take effect, not when the change is entered. The process Send Pending LDAP Requests identifies future-dated transactions and manages role provisioning and deprovisioning at the appropriate time. Note that such role-provisioning changes are effective as of the system date; therefore, a delay of up to 24 hours may occur before users in other time zones acquire the access for which they now qualify.

## Role Mappings: Explained

User access to data and functions is determined by abstract, job, and data roles, which are provisioned to users either automatically or manually. To enable a role to be provisioned to users, you define a relationship, known as a mapping, between the role and a set of conditions, typically assignment attributes such as department, job, and system person type. In a role mapping, you can select any role stored in the Lightweight Directory Access Protocol (LDAP) directory, including Oracle Fusion Applications predefined roles, roles created in Oracle Identity Management (OIM), and HCM data roles.

The role mapping can support:

- Automatic provisioning of roles to users
- Manual provisioning of roles to users
- Role requests from users
- Immediate provisioning of roles

### Automatic Provisioning of Roles to Users

A role is provisioned to a user automatically if:

- At least one of the user's assignments satisfies all conditions associated with the role in the role mapping.
- You select the **Autoprovision** option for the role in the role mapping.

For example, for the HCM data role Sales Manager Finance Department, you could select the **Autoprovision** option and specify the following conditions.

Attribute	Value
Department	Finance Department
Job	Sales Manager
Assignment Status	Active

The HCM data role Sales Manager Finance Department is provisioned automatically to users with at least one assignment that satisfies all of these conditions.

Automatic role provisioning occurs as soon as the user is confirmed to satisfy the role-mapping conditions, which can be when the user's assignment is either created or updated. The provisioning process also removes automatically provisioned roles from users who no longer satisfy the role-mapping conditions.

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**Note**

The automatic provisioning of roles to users is effectively a request to OIM to provision the role. OIM may reject the request if it violates segregation-of-duties rules or fails a custom OIM approval process.

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**Manual Provisioning of Roles to Users**

Users such as human resource (HR) specialists and line managers can provision roles manually to other users; you create a role mapping to identify roles that can be provisioned in this way.

Users can provision a role to other users if:

- At least one of the assignments of the user who is provisioning the role (for example, the line manager) satisfies all conditions associated with the role mapping.
- You select the **Requestable** option for the role in the role mapping.

For example, for the HCM data role Quality Assurance Team Leader, you could select the **Requestable** option and specify the following conditions.

Attribute	Value
Manager with Reports	Yes
Assignment Status	Active

Any user with at least one assignment that satisfies both of these conditions can provision the role Quality Assurance Team Leader manually to other users, who are typically direct and indirect reports.

If the user's assignment subsequently changes, there is no automatic effect on roles provisioned by this user to others; they retain manually provisioned roles until either all of their work relationships are terminated or the roles are manually deprovisioned.

**Role Requests from Users**

Users can request roles when reviewing their own account information; you create a role mapping to identify roles that users can request for themselves.

Users can request a role if:

- At least one of their own assignments satisfies all conditions associated with the role mapping.

- You select the **Self-requestable** option for the role in the role mapping.

For example, for the Expenses Reporting role you could select the **Self-requestable** option and specify the following conditions.

Attribute	Value
Department	ABC Department
System Person Type	Employee
Assignment Status	Active

Any user with at least one assignment that satisfies all of these conditions can request the role. The user acquires the role either immediately or, if approval is required, once the request is approved. Self-requested roles are classified as manually provisioned.

If the user's assignment subsequently changes, there is no automatic effect on self-requested roles. Users retain manually provisioned roles until either all of their work relationships are terminated or the roles are manually deprovisioned.

### Immediate Provisioning of Roles

When you create a role mapping, you can apply autoprovisioning from the role mapping itself.

In this case, all assignments and role mappings in the enterprise are reviewed. Roles are:

- Provisioned immediately to all users who do not currently have roles for which they are eligible
- Deprovisioned immediately from users who are no longer eligible for roles that they currently have

Immediate autoprovisioning from the role mapping enables bulk automatic provisioning of roles to a group of users who are identified by the role-mapping conditions. For example, if you create a new department after a merger, you can provision relevant roles to all users in the new department by applying autoprovisioning immediately.

To provision roles immediately to a single user, the user's line manager or an HR specialist can autoprovision roles from that user's account.

### Role-Mapping Names

The names of role mappings must be unique in the enterprise. You are recommended to devise a naming scheme that reveals the scope of each role mapping. For example:

Name	Description
Autoprovisioned Roles Sales Department	Mapping includes all roles provisioned automatically to anyone in the sales department
Benefits Specialist Autoprovisioned	Mapping defines the conditions for autoprovisioning the Benefits Specialist role

Line Manager Requestable Roles	Mapping includes all roles that a line manager can provision manually to direct and indirect reports
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## Role Mappings: Examples

Roles must be provisioned to users explicitly, either automatically or manually; no role is provisioned to a user by default. This topic provides some examples of typical role mappings to support automatic and manual role provisioning.

### Creating a Role Mapping for Employees

You want all employees in your enterprise to have the Employee role automatically when they are hired. In addition, employees must be able to request the Expenses Reporting role when they need to claim expenses. Few employees will need this role, so you decide not to provision it automatically to all employees.

You create a role mapping called All Employees and enter the following conditions.

Attribute	Value
System Person Type	Employee
Assignment Status	Active

In the role mapping you include the:

- Employee role, and select the **Autoprovision** option
- Expenses Reporting role, and select the **Self-requestable** option

You could create a similar role mapping for contingent workers called All Contingent Workers, where you would set the system person type to contingent worker.

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#### Note

If the Employee and Contingent Worker roles are provisioned automatically, pending workers acquire them when their periods of employment or placements start. If they need roles before then, you create a separate role mapping for the pending worker system person type.

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### Creating a Role Mapping for Line Managers

Any type of worker can be a line manager in the sales business unit. You create a role mapping called Line Manager Sales BU and enter the following conditions.

Attribute	Value
Business Unit	Sales
Assignment Status	Active
Manager with Reports	Yes

You include the Line Manager role and select the **Autoprovision** option. This role mapping ensures that the Line Manager role is provisioned automatically to any worker with at least one assignment that matches the role-mapping conditions.

In the same role mapping, you could include roles that line managers in this business unit can provision manually to other users by selecting the roles and marking them as requestable. Similarly, if line managers can request roles for themselves, you could include those in the same role mapping and mark them as self-requestable.

### Creating a Role Mapping for Retirees

Retirees in your enterprise need a limited amount of system access to manage their retirement accounts. You create a role mapping called All Retirees and enter the following conditions.

Attribute	Value
System Person Type	Retiree
Assignment Status	Inactive

You include the locally defined role Retiree in the role mapping and select the **Autoprovision** option. When at least one of a worker's assignments satisfies the role-mapping conditions, the Retiree role is provisioned to that worker automatically.

### Creating a Role Mapping for Sales Managers

Grade 6 sales managers in the sales department need the Sales Manager role. In addition, sales managers need to be able to provision the Sales Associate role to other workers. You create a role mapping called Sales Managers Sales Department and enter the following conditions.

Attribute	Value
Department	Sales
Job	Sales manager
Grade	6
Assignment Status	Active

In the role mapping, you include the:

- Sales Manager role, and select the **Autoprovision** option
- Sales Associate role, and select the **Requestable** option

## Import Worker Users

### Defining Security After Enterprise Setup: Points to Consider

After the implementation user has set up the enterprise, further security administration depends on the requirements of your enterprise.

The Define Security activity within the Information Technology (IT) Management business process includes the following tasks.

- Import Worker Users
- Import Partner Users
- Manage Job Roles
- Manage Duties
- Manage Application Access Controls

If no legacy users, user accounts, roles, and role memberships are available in the Lightweight Directory Access Protocol (LDAP) store, and no legacy workers are available in Human Resources (HR), the implementation user sets up new users and user accounts and provisions them with roles available in the Oracle Fusion Applications reference implementation.

If no legacy identities (workers, suppliers, customers) exist to represent people in your enterprise, implementation users can create new identities in Human Capital Management (HCM), Supplier Portal, and Customer Relationship Management (CRM) Self Service, respectively, and associate them with users.

### **Before Importing Users**

Oracle Identity Management (OIM) handles importing users.

If legacy employees, contingent workers, and their assignments exist, the HCM Application Administrator imports these definitions by performing the Load Batch Data task. If user and role provisioning rules have been defined, the Load Batch Data process automatically creates user and role provisioning requests as the workers are created.

Once the enterprise is set up, performing the Load Batch Data task populates the enterprise with HR workers in records linked by global user ID (GUID) to corresponding user accounts in the LDAP store. If no user accounts exist in the LDAP store, the Load Batch Data task results in new user accounts being created. Worker email addresses as an alternate input for the Load Batch Data task triggers a search of the LDAP for user GUIDs, which may perform more slowly than entering user names.

In the security reference implementation, the HCM Application Administrator job role hierarchy includes the HCM Batch Data Loading Duty role, which is entitled to import worker identities. This entitlement provides the access necessary to perform the Load Batch Data task in HCM.

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### **Note**

The Import Person and Organization task in the Define Trading Community Import activity imports the following resources, creates users, and links the resources to users for use in CRM.

- Internal employees
- Contingent workers

- External partner contacts
  - Partner companies
  - Legal entities
  - Customers
  - Consumers
- 

If role provisioning rules have been defined, the Import Person and Organization task automatically provisions role requests as the users are created.

## **Import Users**

If legacy users (identities) and user accounts exist outside the LDAP store that is being used by the Oracle Fusion Applications installation, the IT security manager has the option to import these definitions to the LDAP store by performing the Import Worker Users and Import Partner Users tasks.

If no legacy users or user accounts can be imported or exist in an LDAP repository accessible to Oracle Identity Management (OIM), the IT security manager creates users manually in OIM or uses the Load Batch Data task to create users from imported HR workers.

Once users exist, their access to Oracle Fusion Applications is dependent on the roles provisioned to them in OIM or Human Capital Management. Use the Manage HCM Role Provisioning Rules task to define rules that determine what roles are provisioned to users.

Importing user identities from other applications, including other Oracle Applications product lines, is either a data migration or manual task. Migrating data from other Oracle Applications includes user data. For more information about importing users, see the Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager.

In the security reference implementation, the IT Security Manager job role hierarchy includes the HCM Batch Data Loading Duty and the Partner Account Administration Duty. These duty roles provide entitlement to import or create users. The entitlement Load Batch Data provides the access necessary to perform the Import Worker Users task in OIM. The entitlement Import Partner entitlement provides the access necessary to perform the Import Partner Users task in OIM.

## **Manage Job Roles**

Job and abstract roles are managed in OIM. This task includes creating and modifying job and abstract roles, but not managing role hierarchies of duties for the jobs.

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### **Note**

Manage Job Roles does not include provisioning job roles to users. Provisioning users is done in OIM, HCM, CRM or Oracle Fusion Supplier Portal.

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Roles control access to application functions and data. Various types of roles identify the functions performed by users.

The Oracle Fusion Applications security reference implementation provides predefined job and abstract roles. In some cases, the jobs defined in your enterprise may differ from the predefined job roles in the security reference implementation. The predefined roles and role hierarchies in Oracle Fusion may require changes or your enterprise may require you to create new roles. For example, you need a job role for a petty cash administrator, in addition to an accounts payable manager. The security reference implementation includes a predefined Accounts Payable Manager, and you can create a petty cash administrator role to extend the reference implementation.

In the security reference implementation, the IT Security Manager job role hierarchy includes the Enterprise Role Management Duty role, which is entitled to manage job and abstract roles (the entitlement is Manage Enterprise Role). This entitlement provides the access necessary to perform the Manage Job Roles task in OIM.

## **Manage Duties**

A person with a job role must be able to perform certain duties. In the Oracle Fusion Applications security reference implementation, enterprise roles inherit duties through a role hierarchy. Each duty corresponds to a duty role. Duty roles specify the duties performed within applications and define the function and data access granted to the enterprise roles that inherit the duty roles.

Managing duties includes assigning duties to job and abstract roles in a role hierarchy using Authorization Policy Manager (APM). If your enterprise needs users to perform some actions in applications coexistent with Oracle Fusion applications, you may wish to remove the duty roles that enable those actions. For details about which duty roles are specific to the products in an offering, see the Oracle Fusion Applications Security Reference Manual for each offering.

OIM stores the role hierarchy and the spanning of roles across multiple pillars or logical partitions of applications.

In cases where your enterprise needs to provide access to custom functions, it may be necessary to create or modify the duty roles of the reference implementation.

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### **Tip**

As a security guideline, use only the predefined duty roles, unless you have added new applications functions. The predefined duty roles fully represent the functions and data that must be accessed by application users and contain all appropriate entitlement. The predefined duty roles are inherently without segregation of duty violations of the constraints used by the Application Access Controls Governor.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Application Role Management Duty role, which is

entitled to manage duty roles (the entitlement is Manage Application Role). This entitlement provides the access necessary to perform the Manage Duties task in APM.

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**Note**

Product family administrators are not entitled to create role hierarchies or manage duty roles and must work with the IT security manager to make changes such as localizing a duty role to change a role hierarchy. Setup for localizations is documented in HCM documentation.

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**Manage Application Access Controls**

Prevent or limit the business activities that a single person may initiate or validate by managing segregation of duties policies in the Application Access Controls Governor (AACG) .

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**Note**

In AACG, segregation of duties policies are called access controls or segregation of duties controls.

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In the security reference implementation, the IT Security Manager job role hierarchy includes the Segregation of Duties Policy Management Duty role, which is entitled to manage segregation of duties policies (the entitlement is Manage Segregation of Duties Policy). This entitlement provides the access necessary to perform the Manage Application Access Controls task in AACG.

## Manage Users

### Creating Users: Worked Example

You can create users by entering basic person and employment data. A user account is created automatically for a person when you create the user record. You can assign the users Oracle Fusion Human Capital Management (HCM) and non-HCM data roles, each providing access to specific functions and data. This example demonstrates how to create a user and assign roles to the user.

---

**Note**

This user management functionality is available for HCM Foundation and Oracle Fusion Workforce Directory Management (WDM) users only.

---

Decisions to Consider	In this Example
For whom are you creating the user record?	Gail Williams

What is the user account name?	Same as the e-mail ID, gail.williams@vision.com
Where is Gail employed?	Gail is an employee of Vision Corporation, and works in the Human Resources (HR) department in the Canada office.
What roles must be provisioned to Gail?	Autoprovision the employee role. Gail is responsible for processing workers' expense claims so provision the role Expense Claims Administrator manually to Gail.

## Prerequisites

1. Create a role mapping called All Employees and enter the following conditions.

Attribute	Value
System Person Type	Employee
Assignment Status	Active

In the role mapping you include the:

- Employee role, and select the **Autoprovision** option
- Expense Claims Administrator role, and select the **Self-requestable** option

## Creating a User

1. On the Search Person page, click the **Create** icon to open the Create User page.
2. Complete the fields, as shown in this table:

Field	Value
Last Name	Williams
First Name	Gail
E-Mail	gail.williams@vision.com
Hire Date	4/12/11

3. In the User Details region, leave the User Name field blank. The user name defaults to the user's e-mail ID.
4. In the Employment Information region, select the person type **Employee** and complete the fields as shown in the table:

Field	Value
Legal Employer	Vision Corporation
Business Unit	Vision Canada
Department	Human Resources

## Assigning Roles to the User

1. Click **Autoprovision Roles** to provision the employee role to the user.
2. Click **Add Role**.
3. Search for and select the **Expense Claims Administrator** role.
4. Click **Save and Close**. The user account is created and the roles are assigned to the user immediately.

## FAQs for Manage Users

### What happens if I send the user name and password?

An e-mail containing the user name and password is sent to the user's primary work e-mail address. If the user has no primary work-email address, then the user name and password are sent to the primary work e-mail address of the user's line manager, if available; otherwise, no notification is sent.

You can select **Send user name and password** only if these details have not already been sent for this user: the user name and password can be sent once only for any user. If this option is available for selection but you do not select it, then you can run the process Send User Name and Password E-Mail Notifications later to notify users of their user names and passwords.



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# Define Automated Governance, Risk, and Performance Controls

## Segregation of Duties: Explained

Segregation of duties (SOD) separates activities such as approving, recording, processing, and reconciling results so an enterprise can more easily prevent or detect unintentional errors and willful fraud. SOD policies, called access control policies in Application Access Controls Governor (AACG), exert both preventive and detective effects.

SOD policies constrain duties across roles so that unethical, illegal, or damaging activities are less likely. SOD policies express constraints among roles. Duty role definitions respect segregation of duties policies.

### Application Access Controls Governor

You manage, remediate, and enforce access controls to ensure effective SOD using the Application Access Controls Governor (AACG) product in the Oracle Governance, Risk and Compliance Controls (GRCC) suite.

AACG applies the SOD policies of the Oracle Fusion Applications security reference implementation using the AACG Oracle Fusion Adapter.

AACG is integrated with Oracle Identity Management (OIM) in Oracle Fusion Applications to prevent SOD control violations before they occur by ensuring SOD compliant user access provisioning. SOD constraints respect provisioning workflows. For example, when provisioning a Payables role to a user, the SOD policy that ensures no user is entitled to create both an invoice and a payment prevents the conflicting roles from being provisioned. AACG validates the request to provision a user with roles against SOD policies and provides a remediating response such as approval or rejections if a violation is raised.

Use AACG to for the following.

- Define SOD controls at any level of access such as in the definition of an entitlement or role.
- Simulate what-if SOD scenarios to understand the effect of proposed SOD control changes.

- Use the library of built-in SOD controls provided as a security guideline.

## Managing Segregation of Duties

SOD policies express incompatible entitlement or incompatible access points into an application. In GRCC, an access point is the lowest level access for a particular application. In GRCC, entitlement is a grouping of access points. As a security guideline, group the lowest level access points or define the SOD policy at the access level causing the least amount of change. Business activities are enabled at access points. In Oracle Fusion Applications, the hierarchy of access points in descending levels is users, roles, and entitlement.

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### Note

AACG entitlements are logical groupings of security objects that represent Oracle Fusion Application access points such as roles or entitlement.

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### Note

In AACG, segregation of duties policies are called access controls.

Oracle Fusion Applications does not predefine business logic for dealing with SOD conflicts. Oracle Fusion Applications does define a set of states where role requests are suspended pending resolution of SOD violations the role request introduces. In most cases, Oracle Fusion Applications invokes OIM to handle role requests. Enterprises define SOD resolution rules when defining SOD policy.

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## Remediating Segregation of Duties Policy Violations

The risk tolerance of your enterprise determines what duties must be segregated and how to address violations.

AACG assists in remediation of violations with a guided simulation that identifies corrective action. You determine the exact effects of role and entitlement changes prior to putting them into production, and adjust controls as needed.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Segregation of Duties in the Security Reference Implementation: Explained

Segregation of duties (SOD) is a special case of function security enforcement. A segregation of duties conflict occurs when a single user is provisioned with a role or role hierarchy that authorizes transactions or operations resulting in the possibility of intentional or inadvertent fraud.

The predefined SOD policies result in duty separation with no inherent violations. For example, an SOD policy prevents a user from entitlement to create both payables invoices and payables payments.

However, the most common duties associated with some job and abstract roles could conflict with the predefined segregation of duties. A predefined role hierarchy or job or abstract role may include such common duties that are incompatible according to a segregation of duties policy. For example, the predefined Accounts Payable Supervisor job role includes the incompatible duties: Payables Invoice Creation Duty and Payables Payment Creation Duty.

Every single predefined duty role is free from an inherent segregation of duties violation. For example, no duty role violates the SOD policy that prevents a user from entitlement to both create payables invoices and payables payments.

Jobs in the reference implementation may contain violations against the implemented policies and require intervention depending on your risk tolerance, even if you define no additional jobs or SOD policies.

Provisioning enforces segregation of duties policies. For example, provisioning a role to a user that inherits a duty role with entitlement to create payables invoices enforces the segregation of duties policy applied to that duty role and ensures the user is not also entitled to create a payables payment. When a role inherits several duty rules that together introduce a conflict, the role is provisioned with a violation being raised in the Application Access Controls Governor (AACG). If two roles are provisioned to a user and introduce a segregation of duties violation, the violation is raised in AACG.

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**Note**

SOD policies are not enforced at the time of role definition.

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Aspects of segregation of duties policies in the security reference implementation involve the following.

- Application Access Controls Governor (AACG)
- Conflicts defined in segregation of duties policies
- Violations of the conflicts defined in segregation of duties policies

**Application Access Controls Governor (AACG)**

AACG is a component of the Governance, Risk, and Compliance Controls (GRCC) suite of products where segregation of duties policies are defined.

- Define SOD controls at any level of access such as in the definition of an entitlement or role.
- Simulate what-if SOD scenarios to understand the effect of proposed SOD control changes.
- Use the library of built-in SOD controls provided as a security guideline.

Your risk tolerance determines how many duties to segregate. The greater the segregation, the greater the cost to the enterprise in complexity at implementation and during maintenance. Balance the cost of segregation with the reduction of risk based on your business needs.

## Conflicts

An intra-role conflict occurs when a segregation of duties policy expresses constraints within the construct of a single role (entitlement and duties) that creates violations.

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### Tip

As a security guideline, use only the predefined duty roles, unless you have added new applications functions. The predefined duty roles fully represent the functions and data that must be accessed by application users and contain all appropriate entitlement. The predefined duty roles are inherently without segregation of duty violations of the constraints used by the Application Access Controls Governor.

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## Violations

A segregation of duties violation occurs when a policy is defined that allows a segregation of duties conflict to occur.

Notifications report conflicts to the requester of the transaction that raised the violation. Oracle Identity Management (OIM) shows the status of role requests indicating if a segregation of duties violation has occurred.

For information on configuring audit policies, see the Oracle Fusion Applications Administrator's Guide.

For more information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Defining Segregation of Duties Policies: Points To Consider

Segregation of duties (SOD) policies express incompatibilities enforced to control access in defined contexts.

In Oracle Fusion Applications, SOD policies protect against the following incompatibilities.

- Privilege X is incompatible with privilege Y
- Role A is incompatible with role B
- Any privileges in role A are incompatible with any privileges in role B.
- Privilege X is incompatible with any privileges in role B.

The following examples of SOD policies illustrate incompatible entitlement.

- No user should have access to Bank Account Management and Supplier Payments duties.

- No user should have access to Update Supplier Bank Account and Approve Supplier Invoice entitlement.

## Data Contexts

You can extend SOD policies to control access to specific data contexts.

For example, no single individual must be able to source a supplier in a business unit and approve a supplier invoice in the same business unit.

## Exclusion and Inclusion Conditions

SOD policies may include exclusion conditions to narrow the SOD scope and reduce false positive violations, or inclusion conditions to broaden the scope.

Conditions apply to access points globally, to policies, or to access paths defined by policies. Access path conditions can exclude a user from a role, an Oracle Fusion Applications entitlement from a role, or a permission from an Oracle Fusion Applications entitlement.

The following global exclusion conditions are predefined in Oracle Fusion Applications and available when creating SOD policies.

- User Status
- User Name
- Enterprise Role
- Action
- Business Unit
- Within Same Business Unit

## Enforcement

Oracle Fusion Applications enforces SOD policies under the following circumstances.

- When granting entitlement to a role
- When provisioning a role to a user

For information on managing segregation of duties, see Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

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### Note

SOD policies are not enforced at the time of role definition.

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A single SOD policy can include entitlement from multiple instances of a single enterprise resource planning environment. For example, one SOD policy is

enforced in implementation, test, and production instances of Oracle Fusion Applications.

## Managing Segregation of Duties Risks and Violations: Critical Choices

You assess and balance the cost of duty segregation against reduction of risk based on the requirements of your enterprise.

The types of people who resolve SOD conflicts include the following.

- Administrator of an external program such as the Procurement Administrator for the supplier portal or the Partner Manager for the PRM Program
- Senior executive spanning multiple organizations in an enterprise with opposing interests
- Risk management professional implementing an Oracle Governance, Risk and Compliance Controls (GRCC) initiative
  - Predefines a set of conditions and informs access provisioning staff to approve requests and prove the exception based on certain conditions
  - Allows defining rules to route SOD violations for approval

You view and respond to risks and violations in the Application Access Controls Governor (AACC).

You may wish to override an SOD violation. For example, the Accounts Payable Supervisor includes incompatible duties to create both invoices and payments. When you provision this job role to a user, you may waive the violation in the AACC. You may waive the violation for the currently provisioned user, for the SOD policy that raised the violation, or for the SOD policy within a particular data set, such as a business unit.

The risk tolerance of your enterprise guides how you respond to conflicts. For example, a user may be provisioned with both the role of Order Manager and Shipping Agent. The Order Manger role entitles the user to enter orders, which could result in exploitation when filling shipping quotas. You can remove the entitlement to enter orders that the Order Manger job role inherits from the Orchestration Order Scheduling Duty role. Or you could segregate the shipping and order entry duties by defining an SOD policy that allows a user to have either job role but not both.

### False Positives

False positives can be SOD policy violations that are not actually violations, or are violations within your risk tolerance and therefore do not require corrective action.

You can reduce false positives by the following methods.

- Define exclusion conditions that can be applied to individual or groups of policies.
- Define logically complex SOD policies that enforce more exacting specifications.
- Determine whether conflicts should be prevented, monitored, or subjected to approval during provisioning.

### **Path Level Detection**

Conflict analysis detects a user's multiple paths to one or more conflicting access points.

For example, a user may be able to reach a single access point through one or more roles, or by one entitlement leading to another through submenus to a function that represents a risk. The resulting conflict path shows if the conflict is generated by inappropriate role provisioning or configuration of applications. The audit shows the paths from any number of users to any number of access points involved in conflicts, which lets you visualize the root cause and remediate effectively.

AACG assigns one or more users to review all paths involved in a given conflict so that the entire conflict can be addressed in a coherent way.

### **Waiving or Accepting Violations**

AACG lets you accept or waive a violation. Your reasons may include that you accept the risk or will define compensating controls.

A waiver may apply to the current user, constraint, or constraint within a dimension such as the business unit.

### **Resolving Conflicts**

The risk tolerance of the enterprise determines whether a segregation of duties conflict must be removed from the security reference implementation.

The following approaches resolve conflicts.

- Change the segregation of duties policy.
- Ensure a job role does not contain incompatible duties.
- Define data security policies that restrict authorized access by incompatible duties.

Changing a segregation of duties policy may not be possible in most cases. For example, a policy that segregates creation of payables invoice from making payables payments should be preserved, even if the Accounts Payables Manager job role includes a duty role for each activity. To prevent an accounts payables manager from being authorized to perform both duties, or from being authorized to make payables payments to self and direct reports, the Accounts Payables Manager job role must be changed. The security implementation can be changed to include two job roles that segregate the incompatible duties. Added data security policy grants can restrict the access to at risk data.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.

## Role Provisioning and Segregation of Duties: How They Work Together

Segregation of duties (SOD) checks occur when roles are assigned to users. The checks are based on Oracle Application Access Controls Governor (AACG) policies. The Oracle Identity Management (OIM) integration includes predefined routing rules for remediation in the Manage IT Security business process.

External users such as suppliers or partners need to be provisioned with roles to facilitate access to parent company interfaces and data. The process by which such provisioning requests are approved in Oracle Fusion Applications helps explain the request flows and possible outcomes.

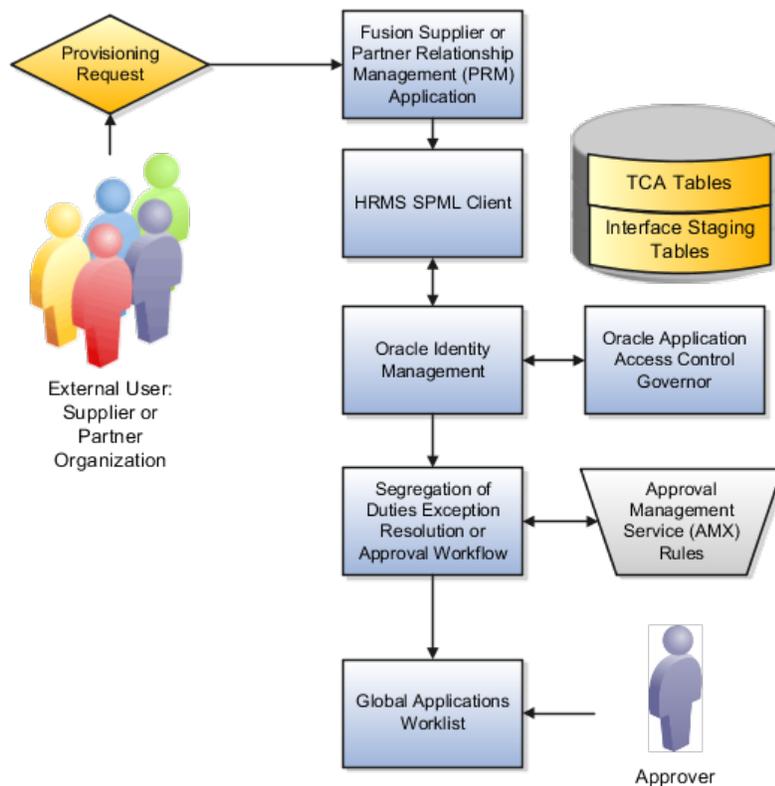
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### Note

In Oracle Identity Management (OIM), external users means users who are not specific to applications, such as enterprise roles or the absence of entitlement to access an application.

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The figure shows the role provisioning request flow. OIM uses AACG to check segregation of duties violations.



## Tables

A supplier or partner requests admission to a program using an implementation of the Supplier Portal Submission. The submission is captured in one or both of the following tables in advance of approving or rejecting the supplier or partner.

- Oracle Fusion Trading Community Model
- Interface Staging

Oracle Fusion Applications collects the employee names for the supplier or partner company at the time the company submits its request to join the program so that all employees accessing Oracle Fusion Applications on behalf of the supplier or partner are provisioned.

AACG in the Oracle Governance, Risk and Compliance Controls (GRCC) suite is certified to synchronize with the policy and identity stores for all pillars or partitions of Oracle Fusion Applications and integrated with the Oracle Fusion Applications security approach to roll up entitlements (by means of duty roles) to the roles that are provisioned to internal users. SOD policies can be defined and enforced at any level of authorization. For external users, SOD policies use attribute information stored in the Trading Community Model tables.

## OIM and the SPML Client

Enterprise business logic may qualify the requester and initiate a role provisioning request by invoking the Services Provisioning Markup Language (SPML) client module, as may occur during onboarding of internal users with Human Capital Management (HCM), in which case the SPML client submits an asynchronous SPML call to OIM. Or OIM handles the role request by presenting roles for selection based on associated policies.

OIM recognizes the role provisioning request and initiates a call to AACG.

OIM apprises the SPML client of the current state of the role provisioning request as SOD\_CHECK\_IN\_PROGRESS.

OIM stores the SOD check result as part of OIM audit data.

OIM apprises SPML client of the current state of the SPML request. The provisioning is either still in progress with segregation of duties being checked, or conflicts were found. If conflicts exist, AACG rejects the request and notifies the application.

Status	Conflicts	Current State
SOD_CHECK_IN_PROGRESS	Unknown	Request sent to AACG and waiting for response
SOD_REMEDIATION_IN_PROGRESS	Conflict found	AACG detected violations and remediation is in progress
SOD_CHECK_APPROVED	No conflict found	No SOD violations found
SOD_CHECK_REJECTED	Conflict found	AACG detected violations that cannot be remediated
SOD_REMEDIATION_APPROVED	Conflict found	AACG detected violations that are approved

SOD_REMEDIATION_REJECTED	Conflict found	AACG detected violations that are rejected by approver
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In the absence of an SOD exception, OIM provisions all relevant users.

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**Note**

When a partner user is provisioned, all employees of the partner enterprise are provisioned. SOD checks occur when an external user requests to join a program, because SOD policies operate across Oracle Fusion Applications, not at the individual level. Supplier or partner company user requests are not approved if there is an SOD conflict against the supplier company.

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OIM provides AACG with the details of SOD exception approval workflow. AACG audits the outcome for use in future detective controls and audit processes.

**Oracle Application Access Controls Governor**

AACG may respond with the following.

- Roles may be provisioned to the external user or its employees because no SOD conflict is found
- SOD conflict is found and request is denied because the relevant SOD policy is to be strictly enforced and no exception approval should be allowed
- SOD conflict is found and the exception to the policy is allowed, so the request goes through additional processing, such as an approval process.

Supplier or Partner Relationship Management responds to an SOD exception by updating Trading Community Model tables with the current state. An enterprise may elect to implement a landing pad that offers external users a means of addressing the SOD problem by providing more information or withdrawing the request.

SOD violation checking occurs during role implementation and provisioning, and can be turned on or off if AACG is provisioned and enabled as part of the Oracle Fusion Applications deployment.

**Segregation of Duties Exception Resolution or Approval Workflow**

Depending upon status, OIM kicks off an auditable SOD exception resolution workflow. Resolution can be conditional based on approval or requirements such as contracts being met.

If one of the paths for exception resolution is to get an approval, then the SOD exception resolution drives the approval using AMX. Standard AMX rules, not business rules, resolve the approval for the SOD exception, including the following.

- Organizational hierarchies
- Multiple mandatory and optional approvers

- Rerouting and approval delegation

The approver resolution uses AMX Rules Designer to access various user attributes and organizational hierarchies managed in Oracle Fusion Applications repositories. This information is typically not available in OIM or the LDAP identity store repository. Enterprises can define additional approval rules using AMX Thin Client.

The SOD Exception Approver gets a notification through supported channels that a new request is awaiting approval. The approver signs in to the global SOA federated worklist application that aggregates all pending worklist items for the user from all Oracle Fusion applications and logical partitions or pillars of applications. The SOD exception approval tasks show up in the same list.

The SOD exception approval task shows the details of the SPML request and SOD Provisioning results in a page rendered by OIM. The approver may take one of the following actions.

- Approve the request as it is
- Reject the request

If the approver approves the request, OIM sends an `SOD_REMEDIATION_APPROVED` status to the SPML client.

If the approver rejects the request, OIM sends an `SOD_REMEDIATION_REJECTED` status to the SPML client. The provisioning request is considered completed with a failure outcome and the external users is notified. Oracle Fusion Applications updates the Trading Community Model tables with the rejected status

### **Remediation Task Assignments**

The SOD remediation tasks are assigned based on the role being requested.

1. If the role requested is Chief Financial Officer, the SOD remediation task is assigned to the IT Security Manager role.
2. If the SOD violation results from a policy where the SOD control tag is the Information Technology Management business process and the control priority is 1, the SOD remediation task is assigned to Application Administrator role.
3. In all other scenarios, the SOD remediation task is assigned to the Controller role.

For more information about configuring audit policies, see the Oracle Fusion Applications Administrator's Guide.

For information on managing segregation of duties, see the Oracle Application Access Controls Governor Implementation Guide and Oracle Application Access Controls Governor User's Guide.



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## Define Help Configuration

### Define Help Configuration: Overview

The Define Help Configuration task list contains tasks that let you set up and maintain Oracle Fusion Applications Help for all users. Use the Set Help Options task to determine if certain aspects of Oracle Fusion Applications Help are available to users and to control how aspects of the help site work. Use the Assign Help Text Administration Duty and Manage Help Security Groups tasks to set up customization of help content.

After performing the help configuration tasks, you can review the predefined help and consider whether to add or customize any content. You can also customize help that is embedded in the application, for example hints and help windows, using other tools such as Oracle JDeveloper and Oracle Composer.

Use the Setup and Maintenance work area to access the tasks in the Define Help Configuration task list.

### Set Help Options

#### Help Feature Choices and Help Options: Points to Consider

Help feature choices on the Configure Offerings page in the Setup and Maintenance work area control the look and behavior of Oracle Fusion Applications Help, and also determine which help options are available. Help options are setup options on the Set Help Options page.

##### Local Installation of Help

Select the Local Installation of Help feature choice so that the Define Help Configuration task list appears in your implementation project, and you can select two additional features (Access to Internet-Based Help Features and Help Customization) to control the fields available on the Set Help Options page.

##### Access to Internet-Based Help Features

Select this feature choice to provide users access to features that involve navigation to sites on the Web. If you select this feature choice, then the Web Sites Available from Help Site section is available on the Set Help Options page.

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## Important

Some help includes links to the Oracle Fusion Applications Technology Library. If you select this feature, then these links open the library on the Oracle Technology Network Web site. If you do not select this feature, then your service administrator (Oracle Cloud implementations) or system administrator (other implementations) must download the library from Oracle Technology Network (<http://www.oracle.com/technetwork/documentation/default-1577155.html>) and put all the content from within the extracted folder (for example E28271\_01) directly into the appmgr/APPLTOP/fusionapps/applications/ahc/afh/reference/TechLib folder.

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## Help Customization

Select the Help Customization feature choice if you intend to customize predefined help or add your own files to help. For example, you can add internal policies or procedures as help, and Oracle User Productivity Kit content, if any. Not selecting this feature choice only hides the relevant setup options; help customization is not disabled for users with customization access. To disable help customization, remove the Oracle Fusion Help Text Administration duty from the job roles where it is predefined.

If you select this feature choice, then the Custom Help Security feature choice is available, as well as all these sections on the Set Help Options page:

- Custom Help
- User Productivity Kit
- Privacy Statement

## Custom Help Security

Select this feature choice if you want certain help files to be available only to a restricted set of users. You can define the user groups allowed to view corresponding help files. Do not select this feature choice if you do not have this requirement, because the feature can have an impact on performance.

If you select the Custom Help Security feature choice, then the Manage Help Security Groups task is available in the Define Help Configuration task list in your implementation project. There are no help options associated with this feature choice.

# Administering Collaboration Features and Announcements in Help: Points to Consider

Announcements and collaboration features (discussions, ratings and comments) allow users to share information regarding help and the subjects that particular help files cover. The collaboration features are also used elsewhere in Oracle Fusion Applications. Discussions may not be available in Oracle Cloud implementations.

Use the Set Help Options page in the Setup and Maintenance work area to enable the announcements and discussions features and to set options about

ratings. When administering these features, consider the purpose of each feature and points that are specific to Oracle Fusion Applications Help.

## **Announcements**

Use announcements to broadcast information to all users of your help site. You can provide information about help, for example new custom help that was recently added, or about anything that users should take note of, for example a change in company policy. Announcements can appear on any of the tabs on the home page of Oracle Fusion Applications Help. You can target specific user groups by posting announcements to specific tabs, for example, posting information related to implementation to the Functional Setup tab.

Only users with the Oracle Fusion Help Text Administration duty role have access to the Manage Announcements icon button in the Announcements sections. They can create, edit, and delete announcements for the tab that they are on, and set the date range for when each announcement is to be displayed.

## **Discussions**

Users can use discussions to post questions or comments about subjects covered in specific help files. For example, after reading help on expense reports, users might have questions or comments about company policies or processes for expenses. Other users who later access this help file would benefit from the information in the discussion.

You can set a help option to enable discussions. Each help file would contain a **Discuss** link that all users can use to read discussions about that file. They can also start a discussion topic or post to existing topics. These discussions are visible only to users in your enterprise.

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## **Important**

Do not enable discussions until servers for discussions are up and running.

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Only users with the appropriate administrator role can moderate discussions. For more information on granting the administrator role on the discussions server, see the Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter Portal.

## **Ratings and Comments**

Users can rate any help file on a five star system and provide feedback about the content. This information is helpful to other users in deciding which help file to open. Help files with a higher average rating are listed first in help windows, and in the help listings you see as you browse using the help navigators.

The scope of ratings and reviews is limited to your enterprise.

## **FAQs for Set Help Options**

### **When do I link to the Oracle User Productivity Kit library from the help site?**

Provide a link to your Oracle User Productivity Kit (UPK) library if you have UPK licensed and custom UPK content to share with your users. You give them

access to a library of custom UPK content in addition to any custom UPK demos that you added to the help site itself. UPK demos that you add as custom help are available only in the See It mode, so the library can include the same demo in other modes. If you have UPK versions earlier than 3.6.1, then you cannot add UPK demos as custom help, so the link is the only way for users to access custom UPK content from the help site.

### How can I find the URL to the Oracle User Productivity Kit library?

The URL to enter on the Set Help Options page should be the full path from the Web server where you are hosting your Oracle User Productivity Kit (UPK) content to the index.html file that opens the table of contents for the library, for example, `http://<your domain>.com/UPKcontent/PlayerPackage/index.html`. In this example, you or your UPK administrator would publish one UPK player package that contains all the content to be linked to from Oracle Fusion Applications Help, as well as the index.html file, and place the PlayerPackage folder in a manually created folder called UPKcontent on the Web server.

## FAQs for Assign Help Text Administration Duty

### Who can add and manage custom help?

Users with the Oracle Fusion Help Text Administration duty role have access to customize help in Oracle Fusion Applications Help. This duty is assigned by default to various job roles, in particular the administrators for product families.

You can assign the duty role to other users who need access to customize help. Use the Manage Duties task in the Setup and Maintenance work area to search for the Oracle Fusion Help Text Administration duty role on the Role Catalog page, and map additional job roles to this duty role.

## Manage Help Security Groups

### Creating Help Security Groups: Worked Example

This example demonstrates how to create a help security group to define a set of job roles that have access to help. The help security group can then be assigned to particular help files so that only users with any of the defined roles have access to the help.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What type of users do you need to limit help access to?	Human resources (HR) specialists
Is there a specific time period for which this access is needed?	No, the help files should always be viewed only by the HR specialists
Where do you want this group to appear in the list of values for help security groups?	First

Define a help security group and assign a duty role to the group.

1. From the Setup and Maintenance work area, find the Manage Help Security Groups task and click **Go to Task**.
2. On the Manage Help Security Groups page, add a new row.
3. Complete the fields, as shown in this table. Leave the start and end dates blank.

Field	Value
Help Security Group	HR
Meaning	HR Only
Description	Viewing by HR specialists only
Display Sequence	1

4. Click **Save**.
5. With your new help security group selected, go to the Associated Roles section and add a new row.
6. Select **PER\_HUMAN\_RESOURCE\_SPECIALIST** as the role name.
7. Click **Save and Close**.

You have created a new lookup code for the Help Security Groups lookup type, which is a standard lookup. The lookup code has the name, meaning, and description that you defined for the help security group.

You have also created a data security policy for the help database resource, specifying that the Human Resource Specialist role can view help that is defined with the HR security group. If you go to the Manage Database Resources and Policies page and find the database resource, or object, **ATK\_KR\_TOPICS**, then you can see the policy for the Human Resource Specialist role, with the condition that the column name, **SECURITY\_CODE**, is equal to the value **HR**.

## Help File Customization

### Help File Customization: Overview

If you have the appropriate job roles, then you can customize the help files in the help site. Use the Manage Custom Help page to maintain both predefined and custom help files. You can create, duplicate, edit, and delete custom files, or set their status to Active or Inactive. For predefined files, you can only duplicate them or set their status. For each help file, predefined or custom, use help locations to determine where the help file appears in the application and in the help site. You have various options in how you add custom help, for example by uploading a file or specifying a URL.

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#### Note

To make a copy of all custom help for testing, migration, or other purposes, use the export and import feature in the Setup and Maintenance work area.

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There are various ways to access help customization.

- Many help files can be accessed from help windows in the application. If you want to customize help in the context of a help window, for example create a custom help file and add a link to it from a specific help window, then start by opening that help window. When you click the **Manage Custom Help** link, you go to the Manage Custom Help page, and the help location fields are automatically populated with values that correspond to the help window. This way you can easily select existing files to add to the same help location, and when you create a new file, the same help location appears by default.
- Open the Manage Custom Help page directly from the home page of Oracle Fusion Applications Help or from search result pages.
- To edit a specific file, you can either find it in the Manage Custom Help page, or open the file itself and click the **Edit** link.
- Likewise, you can find glossary terms in the Manage Custom Help page, or click the **Glossary** link in the global area to open the Glossary tab, search for the term, and click **Edit**.

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#### Note

When you search in the Manage Custom Help page, make sure that the **Custom Help Only** check box is not selected if you are looking for predefined help.

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If your enterprise has purchased Oracle User Productivity Kit (UPK) content, then your administrator can also add a **UPK** item to the **Help** menu in the global area of Oracle Fusion Applications. When users select this menu item, they access UPK content specific to the page that they are on.

## Help Types: Explained

Oracle Fusion Applications Help contains various types of help content, including demos, examples, FAQs, glossary terms, help topics, and PDF guides. A business process or product can be supported by some or all of these help types.

### Demo

Demos are Oracle User Productivity Kit (UPK) topics that visually demonstrate how to use the application to complete a short task or portion of a task. Demos can also provide an introduction to complex dashboards and work areas.

### Example

Examples provide real use cases of features to illustrate how and when to use the feature, or scenarios to illustrate abstract concepts. Worked examples show

exactly what you need to do to achieve a specific result, emphasizing decisions that you make and values that you enter.

## FAQ

FAQs, or frequently asked questions, provide brief answers to questions that you might have regarding a task or page. For example, they can briefly explain what a term means, why something happened, how you can perform an action, or what happens if you perform the action.

## Glossary

Glossary terms provide definitions for words or phrases used in help. You can search or browse glossary terms in the Glossary tab of Oracle Fusion Applications Help. Where the links are available, you can also see the definition when you hover over the term in help content for other help types.

## Help Topic

Help topics explain key concepts, illustrate how application components work together, or assist in decision-making by explaining points to consider or the options you have. Help topics can also provide reference, overview, and other information.

## PDF Guide

PDF guides present a collection of help content from the other help types, except demos, in an organized and logical format. For example, there are guides addressing specific business processes and setup offerings. You can see lists of all guides from the **Guides** menu in Oracle Fusion Applications Help.

# Help Locations: Explained

Help locations determine where users can find help files, custom or not, from either the application or the help site.

Help locations include:

- Page or section values
- Help hierarchies
- Primary locations

## Page or Section Values

The value in the **Page or Section** field on the help customization pages represents where users can click a help icon to open a help window that contains a link to the help file. In most cases, this value represents a page or region header in the application. Help windows are also available on specific tabs or windows, and in the Setup and Maintenance work area for specific task lists or tasks. You can associate a help file with multiple page or section values, or with none at all.

The page or section value reflects the logical navigation to the help window. For example, **Edit Opportunity page, Revenue tab, Recommendations window** does not mean that the help file is available in three different places. The help icon is in the Recommendations window, which is accessed from the Revenue tab on the Edit Opportunity page.

If the value suggests multiple locations, for example **Create and Edit Opportunity pages**, then the help file is available from the page header of both the Create Opportunity and Edit Opportunity pages. If the page or section value is, for example, a dashboard region that appears in multiple dashboards, then the value does not specify the page name but just the region. The help file is available from that region in multiple dashboards.

## Help Hierarchies

Help files are associated with help hierarchies, which are used to categorize help files and aid users in finding help. Each help file can have multiple hierarchies, with at least one of type Business Processes. The business process hierarchy is based on the Business Process Management model. Every page or section value is predefined with a specific business process hierarchy. If you select a page or section without entering a business process hierarchy, the predefined hierarchy appears by default.

The Search by Business Process navigator in the help site is based on the business process hierarchy. For example, if you assign two business process hierarchies to a help file, users can find the file in both locations in the navigator. When the user clicks **More Help** from a help window, all help files assigned to the same business process hierarchy as the page or section value are returned as search results.

Similarly, the Search by Product navigator is based on the Product hierarchy type, in which level 1 is the product family, level 2 is the product, and level 3 is the business activity owned by that product.

The Search by Functional Setup navigator is based on the Functional Setup hierarchy type. The level 1 nodes for this hierarchy are:

- Functional Setup Manager, which includes help about using the Setup and Maintenance work area.
- Guides, which contains level 2 nodes that correspond to business areas and setup offerings. All the user reference and functional setup PDF guides are included.
- Offerings, which contains level 2 nodes for each setup offering, and lower levels for the main task lists in the offerings. Help for the task lists and tasks are included.

The Search by Common Tasks navigator is based on the Welcome hierarchy type. The level 1 nodes represent categories of functional areas common to all users.

## Primary Locations

The primary location of a help file designates the hierarchy that is displayed for the help file in search results and within the help content as breadcrumbs.

You cannot change the primary location of a help file that came with your help installation. Primary locations of predefined help are based on the business process hierarchy, while custom help files can have primary locations based on hierarchies of any type.

## Editing Predefined Help and Glossary Terms: Points to Consider

When you open any predefined help file, including glossary terms, that came with Oracle Fusion Applications Help, you can see an edit option if you have roles allowing edit access. When you edit predefined help, keep in mind:

- What happens to the original help file
- Where predefined help appears
- Considerations specific to glossary terms

### What Happens to the Original Files

When you edit predefined help, you are actually creating a new custom help file based on the original file, with the same help locations. The customized version replaces the original, which becomes inactive and hidden from users. You can display both versions by reactivating the original in the Manage Custom Help page.

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#### Note

In the Search Results: Existing Help region on the Manage Custom Help page, there is no option to edit predefined help. You can duplicate a predefined help file, edit the copy, and optionally inactivate the original.

---

### Where Predefined Help Appears

All predefined help comes with preassigned help locations, including at least one based on the hierarchy of type Business Processes. Many also have predefined page or section values that indicate where the help can be accessed from help windows in the application.

To change where predefined help appears, either in the help site navigators or in the application, create a duplicate in the Manage Custom Help page. Change or add help locations to your custom copy, and inactivate the original.

Even though glossary terms do not appear in the help site navigators, you still need to enter at least one help location to categorize the glossary term.

### Considerations Specific to Glossary Terms

When you edit a predefined glossary term, the original term becomes inactive. Existing links to the glossary term, from other predefined and custom help files, will automatically point to your custom version. If you later inactivate the

custom glossary term, make sure to activate the original term so that the links still work.

## Links in Custom Help: Points to Consider

When you create or edit custom help, follow best practices when you include links to help files or other content. If you are working on custom help created by duplicating a predefined help file, then you may see existing links from the original file in the Help Content section. The types of links that you can work with include:

- Related help links
- Standard hypertext links
- Links to documentation library content
- Glossary term links

For all link types, except the standard hypertext links, you must create or edit custom help with a Text or Desktop source type. In other words, you must type the help content directly in the application or use an HTML file that you upload to help. For standard hypertext links, the source type can also be URL.

### Related Help Links

Related help is the section at the end of help files that contains links to other help files. The syntax for related help contains a comma-separated list of title IDs that represent help files.

This figure provides an example of related links code.

```
OfaRelatedTopics(CREATE_AUTOMATIC_POSTING_CRITERIA_S_0000,  
JOURNAL_ENTRIES_HOW_THEY_RE_RECORDER_0000)
```

- You can delete this code to remove all related help, or delete title IDs to remove individual links (for example, CREATE\_AUTOMATIC\_POSTING\_CRITERIA\_S\_0000).
- To replace existing links or add new links, you need to retain the code syntax and enter desired title IDs. To find title IDs, search for the help files on the Manage Custom Help page. Title IDs are displayed in the search results, but the **Title ID** column is hidden by default.

### Standard Hypertext Links

You can create standard hypertext links to any file or Web site as long as you ensure the stability and validity of the links, including links to other help files, custom or not. These links can appear anywhere in the body of your help file as long as they come before any related help links.

In the Help Content section, highlight the text that you want to use as link text and click the **Add Link** icon button.

For links to other help files, open the file to which you want to link, and click the **E-Mail** link. Use the URL in the autogenerated e-mail text as the link to the file.

## Links to Documentation Library Content

The syntax for links to HTML files in documentation libraries, for example the Oracle Fusion Applications Technology Library, is:

```
<span class="HP_topic-link_bridgeDocument-linkToSTDoc_"><?ofa  
linkToSTDoc(WCSUG4636) ?><span class="HP_topic-linktext_">Understanding  
Tags</span><?ofa endLink ?></span>.
```

WCSUG4636 is the anchor ID and Understanding Tags is the link text. You can:

- Modify the link by replacing the existing anchor ID or editing the link text, or both.
- Remove the link by deleting all the code for it.
- Create links to documentation library content by following the same syntax. These links can appear anywhere in the body of your help file as long as they come before any related help links.

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### Important

To ensure that you are linking to a supported documentation library, enter anchor IDs only from documentation libraries that are linked from predefined help topics.

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## Glossary Term Links

Glossary term links provide definitions in a note box when users hover over the term in help files.

This figure shows an example of code for a glossary term link.

```
OfaGlossaryTerm("accounting period", ACCOUNTING_PERIOD_0001)
```

In this example, `accounting period` is the link text, or glossary term, and `ACCOUNTING_PERIOD_001` is the identifier, or title ID.

- To remove the link but retain the text, delete all the code except the term itself.
- To add glossary term links, you must follow the link syntax and use the correct title ID for the glossary term. You can find title IDs in the search results of the Manage Custom Help page.

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### Note

If your custom help has glossary terms and the source type is Desktop File, then make sure before uploading that the quotes around the glossary term are actual quotation marks in raw HTML, not `&QUOT`. Otherwise, quotation marks will appear when users view the help file.

# Customizing PDF Guides: Worked Example

This example demonstrates how to customize a PDF guide that came with Oracle Fusion Applications Help. This guide is currently not available from any help window in the application.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What changes do you need to make to the guide?	Change the title of a chapter and remove a section in that chapter, to hide content about a particular subject
Which help window should the customized guide appear in?	The help window for the entire Welcome dashboard of Oracle Fusion Applications
Which help navigators should the customized guide appear in, and on which node?	Same as the original guide, plus the path associated with the help window
Do you want to limit access to the customized guide?	No, same as the original guide

Edit a copy of the original PDF guide, and use the Manage Custom Help page to replace the original PDF guide with your new file.

## Copying and Editing the PDF Guide

1. Open the original PDF guide from the help site and save a copy to your desktop. Leave open the help file for the guide.
2. Using a PDF editor application, change the title of the chapter wherever the chapter title appears. Delete the content you want to hide from users.
3. Make sure that your new PDF guide is less than 6 MB.

## Replacing the Original PDF Guide

1. In the help file that you still have open for the original PDF guide, click the **Edit** link.
2. On the Create Help page, use the default values except where indicated.
3. Update the title to the name that you want to display to users.
4. In the **File Name** field, browse for and select your customized guide.
5. Delete any keywords or parts of the description relevant to the content you removed from the PDF guide.
6. Add a help location with the Business Processes hierarchy type and select **Information Technology Management** as the level 1 node, **Manage Enterprise Application Software** as the level 2 node, and **Use Applications** as the level 3 node.
7. Select **Welcome page** in the **Page or Section** column.
8. Click **Save and Close**. The help file for the original PDF guide is automatically set to inactive.

## Adding Custom UPK Content to Help: Worked Example

This example demonstrates how to add custom Oracle User Productivity Kit (UPK) topics as demo help files. These help files function like any predefined help file for demos. You can search and include these files in help windows and navigators as you would other help.

In this scenario, you are adding two demos about social networking, to appear in help windows on the Welcome dashboard.

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### Note

Your demo must be made with UPK 3.6.1 or later to be added as help.

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The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
What UPK content do you want to add to help?	From a UPK module containing five topics, add two as custom demos on the help site
Which help navigators should each demo appear in, and on which node?	Because the two demos are about social networking: <ul style="list-style-type: none"> <li>• Search by Common Tasks navigator, under the Collaboration node</li> <li>• Search by Business Process navigator, under <b>Information Technology Management - Manage Networking and Communications - Manage Social Networking Capabilities</b></li> </ul>
Which help window should each demo appear in?	On the Welcome dashboard of Oracle Fusion Applications, one demo goes in the help window in the Activity Stream region, and the other in the People Connection region
Do you want to limit access to the help files for the demos?	No
Do you want the help files to appear in the New and Updated pane?	Yes

Generate a report of UPK document IDs, which you will use when creating custom help, to identify the UPK topics that you want to add. Publish the UPK module as a player package, then create custom help for the UPK topics that you want to use as help demos.

### Generating a UPK Document ID Report

1. In the UPK Developer, select **Details View**.
2. Right-click any column header, for example Name, and select **Column Chooser**.
3. In the Column Chooser dialog box, click and drag the Document ID column header and drop it after the Name column. Close the Column Chooser dialog box.
4. From the File menu, select to print, and save the output as a Microsoft Excel file to your desktop.

## Creating the Player Package

1. From the UPK Developer, make sure that the topics that you want to add as demos have the See It play mode. The topics can also have other modes, but only the See It mode is included in the custom help file.
2. Publish the module, specifying any location for the output and selecting to publish the selection only.
3. In the Formats section of the Publish Content window, select the **Player** check box under the **Deployment** check box group.
4. In the Player section, select the **Include HTML Web Site** check box, to ensure that the custom help file includes a text-only version of the UPK topic.
5. Finish the publishing process, after optionally setting other options.
6. Navigate to the location where you specified the output to be generated.
7. In the Publishing Content folder, copy the PlayerPackage folder and add it to the web server where you store UPK content.

## Creating Custom Help for Demos

1. Open the help window in the Activity Stream region on the Welcome dashboard of Oracle Fusion Applications, and click **Manage Custom Help**.
2. On the Manage Custom Help page, the page or section and hierarchy values are populated with the values for the Activity Stream region.
3. Click **Create**.
4. On the Create Help page, complete the fields in the General Information section, as shown in this table. Use the default values except where indicated.

Field	Value
<b>Title</b>	The name of the UPK topic.
<b>Source Type</b>	Oracle User Productivity Kit
<b>File Location</b>	The full URL of the player package folder on the Web server, for example, <code>http://&lt;your domain&gt;.com/UPKcontent/PlayerPackage.</code>
<b>Document ID</b>	The document ID of the UPK topic to add to the help window in the Activity Stream region. You can copy and paste this ID from the Microsoft Excel file that you generated earlier.
<b>Help Type</b>	Demo
<b>Help Security Group</b>	Unsecured
<b>Keywords</b>	Terms relevant to the demo.
<b>Description</b>	Summary of the demo.
Include in New and Updated pane	Selected

The Help Location section contains values for the help window in the Activity Stream region. This help file will also appear in the Search by Business Process navigator under this predefined hierarchy.

5. Click **Save and Close**.
6. On the Manage Custom Help page, open the help locations for the help file that you just created.
7. Add a help location with the Welcome hierarchy type and select **Collaboration Features** as the level 1 node.
8. Add another help location with the Business Processes hierarchy type and select **Information Technology Management** as the level 1 node, **Manage Networking and Communications** as the level 2 node, and **Manage Social Networking Capabilities** as the level 3 node.
9. Click **Save and Close**.
10. Starting at the Connections region, repeat steps 1 to 9 for the other UPK topic that you want to add.

## FAQs for Help File Customization

### How can I restrict help content to specific user roles?

When you create or edit help, select a help security group that represents the set of roles that you want to have access to the help. If you do not see the Security Group field, then your administrator has not selected the Custom Help Security feature choice. The Unsecured group has no associated roles, so anyone can view the help. The predefined Secured group includes all internal employees and contingent workers, unless this group has been edited. You can create security groups and associate roles using the Manage Help Security Groups page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Help Security Groups task. Your new security groups are immediately available for use to secure new or edited help files.

### Why can't I select and add help to a location?

You must specify a page or section to add the existing help to. To ensure that help is added to the correct help window, go to the page or section in the application, click the **Help** icon, and click the **Manage Custom Help** link in the help window. Alternatively, in the Manage Custom Help page, search for at least a page or section and a level 1 value for the Business Processes hierarchy type before selecting the **Select and Add** option.

You cannot select and add help to a particular hierarchy, on the Manage Custom Help page, without a page or section. To add just a hierarchy, search for the help file, add a new help location, and specify only the hierarchy information.

### What happens to custom help when a help patch is applied?

Oracle Fusion Applications Help patches update all help files, both active and inactive, except custom help. Custom help files are not affected by patches.

Consider reviewing inactive files to see if you want to activate the updated version, or to make similar edits to the custom versions of those files, if any.

## Embedded Help Customization

### Customizing Embedded Help: Highlights

You can customize help that is embedded in the application, for example hints and help windows, for all users of Oracle Fusion Applications.

Embedded help customization is fully described in the Oracle Fusion Applications Extensibility Guide.

- Edit, create, or delete hint text that appears on hover over buttons, links, icons, or tab titles.

See: Customizing or Adding Bubble Embedded Help

- Edit, create, or delete other types of embedded help.

See: Customizing or Adding Static Instructions, In-field Notes, Terminology Definitions, and Help Windows

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# Define Application Toolkit Configuration

## Define Application Toolkit Configuration: Overview

Oracle Fusion Application Toolkit (ATK) is an application that provides various core components of Oracle Fusion Applications, including the Welcome dashboard, Oracle Fusion Applications Help, the Reports and Analytics pane, and the Watchlist feature. Use the Define Application Toolkit Configuration task list to set up and maintain some of these components for all users, and the Define Help Configuration task list for Oracle Fusion Applications Help.

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### Note

The Define Application Toolkit Configuration task list is available in implementation projects only if the Application Toolkit Component Maintenance feature choice is selected.

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Use the Setup and Maintenance work area to access the tasks in the Define Application Toolkit Configuration task list.

## Map Reports to Work Areas

### Additional Report Setup in the Context of the Reports and Analytics Pane: Highlights

Aside from determining which work areas a specific report is mapped to, you can perform additional setup for reports in the context of the Reports and Analytics pane. You can set up report permissions, and enable Oracle Business Intelligence (BI) Publisher reports for scheduled submission.

This additional setup is described in the Oracle Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition) and the Oracle Fusion Applications Extensibility Guide.

#### Report Permissions

- You can restrict access to specific reports for specific users, and this security is not limited to the Reports and Analytics pane. Refer to the

Oracle Fusion Middleware User's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition).

See: Assigning Permissions

### **Oracle Business Intelligence Publisher Reports Submission**

- Oracle BI Publisher reports must be registered as processes with Oracle Enterprise Scheduler to be enabled for scheduling. This registration also enables a Schedule link for the report in the Reports and Analytics Pane. Refer to the Oracle Fusion Applications Extensibility Guide, and perform the following steps in the specified order.
  - Create an Oracle Enterprise Scheduler job definition for the report.  
See: Tasks Required to Run Custom Reports with Oracle Enterprise Scheduler Service
  - Specify the job definition details in the report's properties.  
See: Enabling Reports for Scheduling from the Reports and Analytics Pane

## **FAQs for Map Reports to Work Areas**

### **How can I set up the Reports and Analytics pane for all users?**

You can remove any currently mapped report from the Reports and Analytics pane, or add mappings to reports from the Oracle Business Intelligence (BI) Presentation catalog. To access the setup, click **Edit Settings** in the Reports and Analytics pane, or use the Map Reports to Work Areas task in the Setup and Maintenance work area. If you do the former, then you can set up only the Reports and Analytics pane on the work area that you are in.

If you do the latter, then you can select a work area to set up. If you do not see the desired work area, most likely you do not have access to it due to security. You can request to be granted a role that has access to the work area, or another administrator or business user with access to the work area can be granted the Reports and Analytics Region Administration Duty to be able to map reports to the work area.

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#### **Tip**

On the Map Reports to Work Areas page only, you can also use the Synchronize button to remove mappings to reports that are no longer in the catalog, for all work areas at once.

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Any changes you make in either UI apply to all users with access to the mapped work area.

### **Why can't I see reports when mapping reports to work areas for the Reports and Analytics pane?**

It is possible that there are no reports currently mapped to the work area that you select in the Map Reports to Work Areas page. Alternatively, reports are mapped, but you do not see them due to security.

Similarly, in the list of all available reports from the catalog, you can see only the reports that you have access to. You can request to be granted a role that has access to the reports that you want to map, or another administrator or business user with access to those reports can be granted the Reports and Analytics Region Administration Duty to be able to map reports to work areas.

### **Why can't I see reports when I edit settings for the Reports and Analytics pane?**

In the Edit Settings window, you may not be able to see a currently mapped report because you do not have access to it due to security.

Similarly, in the list of all available reports from the catalog, you can see only the reports that you have access to. You can request to be granted a role that has access to the reports that you want to map, or another administrator or business user with access to those reports can be granted the Reports and Analytics Region Administration Duty to be able to map reports to work areas.

## **Set Watchlist Options**

### **Watchlist Setup: Points to Consider**

For all users across the site, you can disable or enable predefined Watchlist categories and items, edit their names, and determine how often item counts refresh. You cannot delete predefined Watchlist categories and items, nor create any for the site. Users can create their own Watchlist items through saved searches.

Access the Set Watchlist Options page by starting in the Setup and Maintenance Overview page and searching for the Set Watchlist Options task.

#### **Disabling Predefined Categories and Items**

Use the Set Watchlist Options page to enable or disable predefined Watchlist categories and items. Disabling any category or item also disables associated processes involved in calculating the Watchlist item counts for all users. These processes include creating data caches, performing security checks, invoking services across domains, running queries, and so on.

An item with the **Predefined** type represents the actual predefined Watchlist item that appears in the Watchlist. If you disable this type of Watchlist item, then:

- The item is not available for users to display in their watchlist
- The item is removed from any watchlist where it is currently displayed

A Watchlist item with the **User-created saved search** type does not appear in the Watchlist; it controls the display of the **Manage Watchlist** button or menu item in pages with saved searches. If you disable this type of Watchlist item, then:

- The **Manage Watchlist** option is not available to users in the corresponding work area, so users cannot use their own saved searches as

Watchlist items. A message is displayed to users when they try to use this option.

- Any user-defined saved searches from that work area already used as Watchlist items are no longer available in the users' watchlist. The user-defined saved searches are still available to be used for searching, but not for the Watchlist.

If you disable a Watchlist category, then the category is not available for users to include in their watchlist, and all Watchlist items within the category are also disabled.

Ultimately, the Watchlist for any user contains the subset of categories and items that are enabled in the Set Watchlist Options page:

- Plus any items based on user-defined saved searches
- Minus any categories or items that the user chooses to hide using Watchlist preferences
- Minus any items with no results found, if the user chooses to hide such items using Watchlist preferences

### Specifying Refresh Intervals

All Watchlist items have a predefined refresh interval, which controls how often the query that calculates the count for a Watchlist item can be run. Use the Set Watchlist Options page to edit the interval values. What you specify as the refresh interval for a Watchlist item of type User-created Saved Search applies to all Watchlist items based on saved searches created by users on the corresponding search page.

When the user is in the Welcome dashboard with the Watchlist open for at least two and a half minutes, the query automatically runs for all Watchlist items if no refresh already ran in this user session. To subsequently run the query again, users can manually refresh the Watchlist region. The **Refresh** icon is enabled after five minutes since the last refresh.

---

#### Note

During a refresh, the query runs for an individual Watchlist item only if the time since the last query for this item is equal to or greater than the specified refresh interval. Since the manual refresh of the entire Watchlist is not available until five minutes after the last refresh, you should not set a Watchlist item refresh interval that is less than five minutes.

---

When users open Watchlist from the global area, a refresh automatically runs if five minutes have passed since the last refresh. During this refresh, the query runs for an individual Watchlist item only if the time since the last query for this item is equal to or greater than the specified refresh interval.

For example, you set the interval to eight minutes for a particular Watchlist item. When the user signs in and goes to the Welcome dashboard, with the Watchlist open, the query automatically runs for this Watchlist item after two and a half

minutes. Every two and a half minutes after, a check is performed for stale counts and new cached counts are displayed.

Five minutes after the query ran, the **Refresh** icon is enabled and the user performs a manual refresh. However, the query does not run for this Watchlist item, because the refresh interval is eight minutes. The user navigates away from the Welcome dashboard and opens the Watchlist from the global area six minutes later. A refresh automatically runs because more than five minutes have passed since the last refresh. This time, the query runs for this Watchlist item because it has been more than eight minutes since the query last ran for this item.

### **Editing Predefined Category and Item Names**

Predefined Watchlist category and item names are stored as meanings of standard lookups. Lookup types for predefined categories end with WATCHLIST, for example EXM\_EXPENSES\_WATCHLIST. Edit the lookup type meaning to change the category name. To change item names, edit lookup code meanings for that lookup type.



## Define WebLogic Communication Services Configuration

### Click to Dial: Explained

Use Click to Dial to place a call to a contact from a hyperlink on the phone number or phone icon.

Here are a few topics that are important to know when using Click to Dial:

- Normal call flow
- Interaction Records and Notes
- Operational Notes

---

#### Note

Click to Dial must be enabled to make calls using the various contact information pages and pop-up UIs. When enabled, phone numbers appear as hyperlinks. Interaction logging is available if that feature is enabled. If interaction logging is available, a note indicating that fact will be displayed in the UI. See Click to Dial: Top Tasks for more information about enabling these features.

---

#### Normal Call Flow

Click to Dial uses a call-the-caller-then-call-the-callee procedure for completing a phone call. That format and the normal flow of this procedure are described below.

- **You initiate a call**

If you see a small orange square next to a contact or customer name, click the square to display further details, including phone numbers. To place a call, place your mouse over the phone number hyperlink and click.

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#### Note

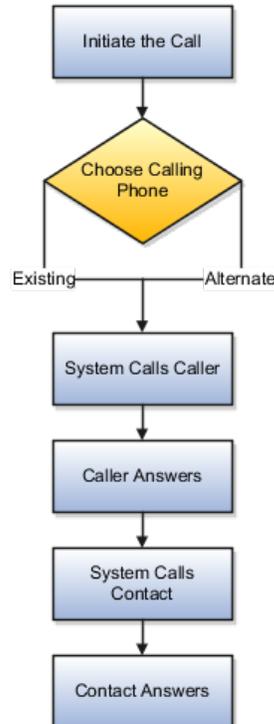
Click to Dial does not work on phone numbers that are marked with a Do Not Call icon.

- 
- **Select a Calling Phone**

Choose the calling phone number. Usually the calling phone is a number from your profile information. Alternately, if you need to use a phone not in your profile, you can specify a different number to originate your call.

- **Call Flow**

After you select the calling phone number, the system calls you back on that number, waits for you to answer, and then calls the person for whom the call is intended.



### **Interaction Records and Notes**

Click to Dial automatically creates an interaction record of the call, when that feature is enabled. The details window that provides the phone number may also show an Interaction icon that you can click to display a list of interaction records to edit, for example to provide a description of the call. The window may also provide a notes feature that you can use to record notes during the call.

### **Interaction Logging**

The interaction record is logged as soon as the call is either successfully set up or known to have failed.

The interaction log records the customer, call participants, a timestamp noting the start time of the call, the direction of the communication, in or outbound, and

the resolution code. The description is automatically updated with these three items:

- Call ID from OWLCS
- Your chosen phone number
- Contact phone number

The call resolution code is determined from OWLCS and recorded in the interaction:

OWLCS Call Status	Resolution Code in Interaction
CallConnected	CALL ANSWERED
CallAborted	FAILED
CallHangUp	FAILED
CalledPartyBusy	NOT AVAILABLE
CalledPartyNoAnswer	NOT AVAILABLE
CalledPartyNotReachable	NOT AVAILABLE
CallingPartyBusy	FAILED
CallingPartyNoAnswer	FAILED
CallingPartyNotReachable	FAILED

### Editing interactions

Once the call is established, if Interactions is available, you can use the Interactions icon on the UI to launch the interaction record list view. Select the current interaction record to edit it.

### Operational Notes

Because of the call-the-caller-then-call-the-callee format, there are some conditions that may occur due to several calling situations. Some of these conditions are described below:

- Why don't I hear a ring-back tone? As soon as you answer the system call-back, the system immediately dials the contact. You won't hear a ring-back tone as in a normal outbound phone call. However, you can tell that the call attempt is progressing because:
  - The phone indicates that the connection is active. If the call to the contact reaches a busy tone or the call attempt times out, the connection is dropped.
  - The dialing window stays on the screen while the call attempt is progressing. It disappears when the connection is either successfully established or fails.
- What if your phone is busy and the call-back goes directly to voice mail? Normally this would not happen because you would not initiate a new call when you are already busy on another call. However, this situation could occur due to a race condition, that is where another incoming call reaches your phone before the Click to Dial call-back. When this happens, two different scenarios could occur:

- If your phone is configured for busy-forward-all-to-voice-mail, the Click to Dial call would be forwarded to your voice mail, and the system thinks that the caller has answered the call and will proceed to call the contact. On answering, the contact hears your voice-mail greeting.
- If your phone is capable of presenting a second call to the user, as is supported by many office phones and mobile phones, then you can still answer the Click to Dial call and there is no issue.
- What if you wait too long to answer the call-back? In other words, you wait longer than the ring-no-answer-forward-to-voice-mail timer on the phone system and the call goes to voice mail. Normally, this would not happen because you are expecting the inbound call after you started the call, and would answer promptly. However, if for some reason you do not answer and allow the call to ring-no-answer-forward to voice mail, then the system would think that you have answered the call and will proceed to call the contact. On answering, the contact hears your voice-mail greeting.
- What if the contact does not answer in 30 seconds and the system abandons the call attempt? If the contact's voice mail is configured to answer after 30 seconds, you will not be able to leave a message.

## Click-to-Dial: Top Tasks

Click-to-Dial is a feature of the customer contact process. Phone communication to customers and employees is initiated with a click of the mouse, leveraging your customer contact information and the application context. The Click-to-Dial feature uses Oracle WebLogic Communication Services, OWLCS, to enable communications. Applications that provide the Click-to-Dial functionality do so primarily through contextual actions in the application.

Additionally, Click-to-Dial utilizes Oracle Fusion Interactions as an optional transaction logging feature that will track information about the call such as the customer, call participants, a timestamp noting the start time of the call, the direction of the communication, in or outbound, and the resolution code.

Click-to-Dial integrates with your telephony environment and must be manually enabled in your deployment. This topic highlights what is required to set up the Click-to-Dial feature and to implement logging of the calls made using the Click-to-Dial feature.

Terms used in setting up these communications

- PSTN: Public switched telephone network is the network of the world's public circuit-switched telephone networks.
- SIP: Session initiation protocol, an open signaling protocol standard that is used to set up phone calls
- TPCC: Third Party Call Control enables an application to control the telephony network to set up calls automatically.
- OWLCS: Oracle WebLogic Communication Services. Offers the TPCC service to Fusion applications and sets up the calls via SIP integration with the telephony network.

The set up task list Define WebLogic Communication Services Configuration delineates four tasks required for the correct configuration and implementation of Click-to-Dial. There is an optional task, separate from the set up task list, required for implementing Interaction logging.

Information about implementing Click-to-Dial can be found in the Oracle Fusion Applications Administrator's Guide. Detailed information about configuring and maintaining WebLogic Communication Services is found in the Oracle WebLogic Communication Services Administrator's Guide

### **Configure and Deploy WebLogic Server**

- Deploy WebLogic Communication Services: After the Oracle WebLogic communication server is deployed, this manual task activates the server.

See: Oracle WebLogic Communication Services Administrator's Guide

### **Integrate Communications Services**

- Integrate WebLogic Communication Services with Telephony Network: This manual task integrates communications within the telephony environment. OWLCS must be configured to interface with the specific characteristics of the telephony network.

See: Managing Oracle WebLogic Communication Services for Click-to-Dial Functionality

### **Specify the Domain and Address**

- Register a URL for the telephony gateway or soft switch for SIP domain: This task defines the Server protocol, defaulted to http, the external server host address and external server port address. The Associated Modules section is not required for setup. You can also perform this as a manual task using the Oracle Fusion Topology Manager to configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click-to-Dial to correctly form the SIP addresses required by WebLogic Communication Services. See the link to Configuring PSTN Gateway Address Using Topology Manager: Worked Example.

### **Enable Click-to-Dial**

- After configuring the server and defining the SIP domain, perform the Enable Click-to-Dial task. This task sets the value of the profile option Enable Click-to-Dial to 'Yes.'

### **Call Logging via Fusion Interactions**

- To initiate the Interaction based logging for Click-to-Dial, set the profile option Call Interaction Logging Enabled to 'YES.'

## **Configuring PSTN Gateway Address Using Topology Manager: Worked Example**

This example demonstrates how, during the implementation of the **Register URL for the telephony gateway or soft switch for SIP domain** task,

you must manually configure the PSTN gateway address by registering HzCTDPstnGatewayApp to a given environment using Oracle Fusion Topology Registration

These steps configure the address of the SIP Public Switched Telephone Network (PSTN) gateway or SIP soft switch serving the users within that domain. This address is needed by Click to Dial to correctly form the SIP addresses required by WebLogic Communication Services.

For example: SIP:+1650-555-1212@pstn\_gateway.oracle.com;user=phone where pstn\_gateway.oracle.com is the SIP domain. The SIP domain can also be expressed in the format 10.1.1.1 (IP address).

## Configuring PSTN using the Topology Manager

1. Sign in to Oracle Fusion Applications as a user that has **application implementation consultant** and **WebLogic Services administration** roles
2. In Fusion Applications Setup and Maintenance, click Register Enterprise Applications from the regional area under **Topology Registration**
3. On the Register Enterprise Applications page, click the plus icon to add an enterprise application. An Add Enterprise Application popup appears
4. Enter the new application information: Click Search in the Enterprise Application list field. Enter **HzCTDPstnGatewayApp** in the name field and click Search. Click OK.
5. Enter the other fields in the Add Enterprise Application popup

Field	Value
Name	HzCTDPstnGatewayApp
Server Protocol	SIP  This field is ignored by click-to-dial. Oracle WebLogic Communication Service (OWLCS) always uses the SIP protocol.
External Server Host	10.143.167.91 (Used as an example)  A host name can be used instead of an IP address.
External Server Port	0 (Used as an example)  This field is ignored by click to dial.

6. Click Save and Close

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# Maintain Common Reference Objects

## Maintain Common Reference Objects: Overview

The Maintain Common Reference Objects task list contains Oracle Fusion Middleware Extensions for Applications (Applications Core) tasks that support implementation of common behaviors, such as data security or reference data sets.

Use this task list to manage common reference objects that are defined centrally and shared across applications, in addition to those that are specific to Applications Core functionality. You can access this task list by starting in the Setup and Maintenance Overview page and searching for common reference object task lists.

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### Note

Offerings also include application-specific tasks for managing Applications Core objects. For example, the Financials offering includes tasks such as Manage Receivables Descriptive Flexfields, and Manage Receivables Lookups.

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For more information on configuring custom objects, see the Oracle Fusion Applications Extensibility Guide.

To make the Maintain Common Reference Objects task list available in your implementation project, go to **Setup and Maintenance Overview - Configure Offerings**, and for a specific offering, select the Maintain Common Reference Objects feature choice.

## Define Application Taxonomy

### Application Taxonomy: Highlights

Application taxonomy is the organization of Oracle application components and functions in a hierarchical structure, from product lines to logical business areas. This hierarchy represents a breakdown of products into units based on how applications are installed and supported. Maintain this hierarchy on the Manage Taxonomy Hierarchy page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Taxonomy Hierarchy task.

A detailed introduction to application taxonomy is provided in the Oracle Fusion Applications Developer's Guide.

### **Hierarchy**

- The application taxonomy hierarchy contains various levels and types of nodes, or modules.

See: Characteristics of the Level Categories

See: Benefits of a Logical Hierarchy

### **Usage**

- Use application taxonomy to understand relationships among applications and between an application and its files. This information is helpful in managing various phases of the product lifecycle.

See: How to Manage the Lifecycle

## **Modules in Application Taxonomy: Explained**

A module is any node in the application taxonomy hierarchy. The top level of the hierarchy is product line, followed by product family, application, and logical business area. There can be multiple levels of logical business areas, with one or more nested within a parent logical business area.

### **Product Line**

A product line is a collection of products under a single brand name, for example, Oracle Fusion.

### **Product Family**

A product family is a collection of products associated with a functional area that may or may not be licensed together as a single unit, for example Financials.

### **Application**

An application is a single product within a product family, containing closely related features for a specific business solution, for example General Ledger.

### **Logical Business Area**

A logical business area is a collection of business object definitions organized into a logical grouping. It contains the model objects, services, and UI components for those business objects. Logical business areas have their own hierarchy levels and in some cases can be two or three levels deep. Each leaf node has at least one business object and service, up to a maximum of four business objects and associated services. A logical business area with more than four business objects are further refined with child logical business area levels. Each of these parent-child levels is represented by a directory in the physical package hierarchy.

# Managing Modules in Application Taxonomy: Points to Consider

Manage modules on the Create Child Module or Edit Module page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Taxonomy Hierarchy task. When you create a module, it is a child of the currently selected node in the application taxonomy hierarchy. This determines which values are available, for example for module type. Once created, you cannot delete the module or move it elsewhere in the hierarchy. As you create or edit modules, consider the following points regarding specific fields.

## Identifiers

Module ID is the unique primary key for nodes in the taxonomy table. When you create a module, an ID is automatically generated. Once the module is created, you cannot update the ID.

Module key and alternative ID are additional identifiers of the module, presented in a way that is easier to read than the module ID. The module key is a string identifier, for example AP for the Oracle Fusion Payables application. The alternative ID is a numeric identifier, for example 1 for the Oracle Fusion product line. These IDs are provided for the product line, product family, and application modules, but you can optionally add them for logical business areas and new custom modules.

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## Note

Do not change the module key or alternative ID for predefined modules.

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The product code is relevant only to application and logical business area modules. You can leave the field blank for other module types. The product code for applications is the short name that can be displayed in lists of application values, for example FND for Oracle Fusion Middleware Extensions for Applications.

## Names

Module name is the logical name for the module and is always available. The name must be unique among nodes in the same hierarchy level with the same parent, but try to make it as unique in the whole hierarchy as possible.

The user name and description can appear to users in other parts of Oracle Fusion Applications, so make sure that the values are something that users know to represent the module.

## Usage Types

Though you can update the usage type to reflect the current state of the module, just doing so does not affect the actual state. For example, setting a module as installed does not mean it is actually installed if the installation itself has not taken place. Installation refers to operations related to laying down all the

components needed to create an Oracle Fusion Applications environment, while deployment is the process that starts the managed servers and clusters and facilitates the actual use of product offerings. A licensed module is available for installation and deployment, and a deployed module is considered actively used when actually used by users.

### **Seed Data**

If seed data is allowed, then seed data such as flexfields and lookups can be extracted for the module using seed data loaders. By default, extract is allowed for all predefined modules of type application and logical business area.

### **Associations**

You can associate a logical domain to modules of type product family, as well as one or more enterprise applications to modules of type application. This association represents the relationship between the taxonomy modules and the corresponding domain and enterprise applications stored in the Oracle Fusion Applications Functional Core (ASK) tables.

## **Define Reference Data Sharing**

### **Reference Data Sharing: Explained**

Reference data sharing facilitates sharing of configuration data such as jobs and payment terms, across organizational divisions or business units. You define reference data sets and determine how the data is shared or partitioned. Use reference data sets to reduce duplication and maintenance by sharing common data across business entities where appropriate. Depending on the requirement (specific or common), each business unit can maintain its data at a central location, using a set of values either specific to it or shared by other business units.

You can share reference data after it is filtered on the basis of sets. A common reference data set is available as the default set, which can be assigned to several business units sharing the same reference data. For commonly used data such as currencies, you can use the common reference data set and assign it to multiple business units in various countries that use the same currency. In cases where the default set cannot be assigned to an entity, you can create specific sets. The data set visible on the transactional page depends on the sharing method used to share reference data.

For example, XYZ Corporation uses the same grades throughout the entire organization. Instead of managers in different business units setting up the same grades, XYZ Corporation decides to create a set called Grades and assign the grades reference data group for all business units in the organization to the Grades set, so that the grades can be shared.

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#### **Note**

For specific information on configuring reference data sharing for a particular object or product, refer to its product documentation.

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# Reference Data Sets: Explained

Reference data sets are logical groups of reference data that can be accessed by various transactional entities depending on the business context. Oracle Fusion Applications contains a common reference data set as well as an enterprise set that may be used as a default set. Depending on your business requirement you can create and maintain additional reference data sets, while continuing to use the common reference data set.

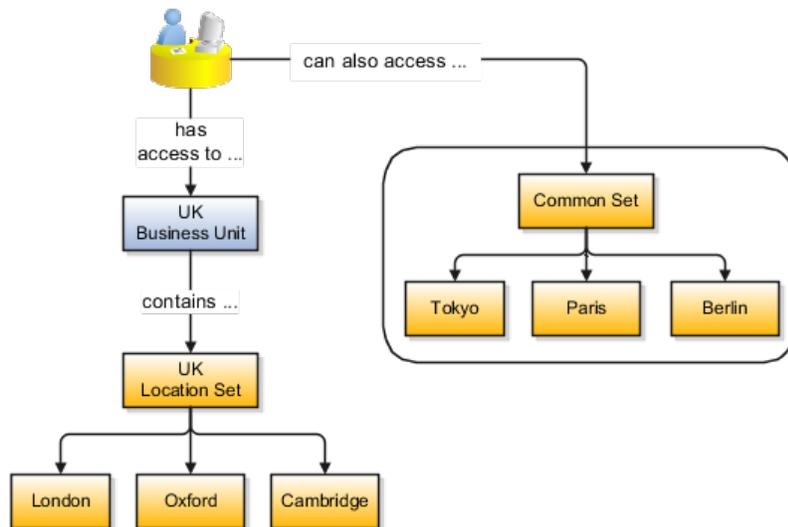
Consider the following scenario.

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

## Partitioning

The partitioning of reference data and creation of data sets enable you to create reference entities across tables or lookup types, and share modular information and data processing options among business units. With the help of partitioning, you can choose to create separate sets and subsets for each business unit depending upon its business requirement, or create common sets or subsets to enable sharing reference data between several business units, without the need for duplicating the reference data. Partitioning provides you the flexibility to handle the reference data in a way appropriate to your business needs.

The following figure illustrates the reference data sharing method (assignment to one set only, with common values) where the user can access the data assigned to a specific set in a particular business unit, as well as access the data assigned to the common set.



## Reference Data Sets and Sharing Methods: Explained

Oracle Fusion Applications reference data sharing feature is also known as SetID. The reference data sharing functionality supports operations in multiple ledgers, business units, and warehouses, thereby reducing the administrative burden and decreasing the time needed to implement new business units. For example, you can share sales methods, transaction types, or payment terms across business units or selected other data across asset books, cost organizations, or project units.

The reference data sharing features use reference data sets to which reference data is assigned. The reference data sets group assigned reference data. The sets can be understood as buckets of reference data assigned to multiple business units or other application components.

### Reference Data Sets

You begin this part of your implementation by creating and assigning reference data to sets. Make changes carefully as changes to a particular set will affect all business units or application components using that set. You can assign a separate set to each business unit for the type of object that is being shared. For example, assign separate sets for payment terms, transaction types, and sales methods to your business units.

Your enterprise can decide that some aspects of corporate policy should affect all business units and leave other aspects to the discretion of the business unit manager. This allows your enterprise to balance autonomy and control for each business unit. For example, if your enterprise holds business unit managers accountable for their profit and loss, but manages working capital requirements at a corporate level, you can let managers define their own sales methods, but define payment terms centrally. In this case, each business unit would have its own reference data set for sales methods, and there would be one central reference data set for payment terms assigned to all business units.

The reference data sharing is especially valuable for lowering the cost of setting up new business units. For example, your enterprise operates in the hospitality industry. You are adding a new business unit to track your new spa services. The hospitality divisional reference data set can be assigned to the new business unit to quickly setup data for this entity component. You can establish other business unit reference data in a business unit specific reference data set as needed

### Reference Data Sharing Methods

There are variations in the methods used to share data in reference data sets across different types of objects. The following list identifies the methods:

- Assignment to one set only, no common values allowed. The simplest form of sharing reference data that allows assigning a reference data object instance to one and only one set. For example, Asset Prorate Conventions are defined and assigned to only one reference data set. This set can be shared across multiple asset books, but all the values are contained only in this one set.
- Assignment to one set only, with common values. The most commonly used method of sharing reference data that allows defining reference data

object instance across all sets. For example, Receivables Transaction Types are assigned to a common set that is available to all the business units without the need to be explicitly assigned the transaction types to each business unit. In addition, you can assign a business unit specific set of transaction types. At transaction entry, the list of values for transaction types includes transaction types from the set assigned to the business unit, as well as transaction types assigned to the common set that is shared across all business units.

- Assignment to multiple sets, no common values allowed. The method of sharing reference data that allows a reference data object instance to be assigned to multiple sets. For instance, Payables Payment Terms use this method. It means that each payment term can be assigned to one or more than one set. For example, you assign the payment term Net 30 to several sets, but the payment term Net 15 is assigned to only your corporate business unit specific set. At transaction entry, the list of values for payment terms consists of only one set of data; the set that is assigned to the transaction's business unit.

Note: Oracle Fusion Applications contains a reference data set called Enterprise. Define any reference data that affects your entire enterprise in this set.

## Assigning Reference Data Sets to Reference Objects: Points to Consider

You can assign the reference data sets to reference objects on the Manage Reference Data Set Assignments page. For multiple assignments, you can classify different types of reference data sets into groups and assign them to reference entity objects. The assignment takes into consideration the determinant type, determinant, and reference group, if any.

### Determinant Types

The partitioned reference data is shared based on a business context setting called the determinant type. It is the point of reference used in the data assignment process. The following table lists the determinant types used in the reference data assignment.

Type	Description
Asset Book	Information about the acquisition, depreciation, and retirement of an asset that belongs to a ledger or a business unit.
Business Unit	The departments or organizations within an enterprise.
Cost Organization	The organization used for cost accounting and reporting on various inventory and cost centers within an enterprise.
Project Unit	A logical organization within an enterprise that is responsible for enforcing consistent project management practices.
Reference Data Set	References to other shared reference data sets.

## Determinant

The determinant or determinant value is the value that corresponds to the selected determinant type. The determinant is one of the criteria for selecting the appropriate reference data set. For example, when managing set assignments for the set determinant type, Reference Data Set is the determinant type, and you would enter the corresponding set code value as the corresponding determinant value.

## Reference Groups

A transactional entity may have multiple reference entities (generally considered to be setup data) that are treated in the same manner because of commonness in implementing business policies and legal rules. Such reference entities in your application are grouped into logical units called reference groups, based on the functional area and the partitioning requirements that they have in common. For example, all tables and views that define Sales Order Type details might be part of the same reference group.

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### Note

The reference groups are predefined in the reference groups table and are available for selection and assignment.

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## Define Lookups

### Lookups: Explained

Lookups are lists of values in applications. You define a list of values as a lookup type consisting of a set of lookup codes, each code's translated meaning, and optionally a tag. End users see the list of translated meanings as the available values for an object.

Lookups provide a means of validation and lists of values where valid values appear on a list with no duplicate values. For example, an application might store the values Y and N in a column in a table, but when displaying those values in the user interface, Yes or No (or their translated equivalents) should be available for end users to select. For example, the two lookup codes Y and N are defined in the REQUIRED\_INDICATOR lookup type.

In another example, a lookup type for marital status has lookup codes for users to specify married, single, or available legal partnerships.

Lookup Type	Lookup Code	Meaning	Tag
MAR_STATUS	M	Married	
	S	Single	
	R	Registered Partner	+NL
	DP	Domestic Partner	-FR, AU

In this case, tags are used for localizing the codes. All legislations list Married and Single. Only the Dutch legislation lists Registered Partner. And all legislations except France and Australia also list Domestic Partner.

When managing lookups, you need to understand the following.

- Using lookups in applications
- Customization levels
- Accessing lookups
- Enabling lookups
- The three kinds of lookups: standard, common, and set enabled

### Using Lookups in Applications

Use lookups to provide validation or a list of values for a user input field in a user interface.

An example of a lookup used for validation is a flexfield segment using a table-validated value set with values from a lookup type. An example of a lookup in a list of values is a profile option's available values from which users select one to set the profile option. Invoice Approval Status gives the option of including payables invoices of different approval statuses in a report. The lookup code values include All so that users can report by all statuses: Approved, Resubmitted for approval, Pending or rejected, and Rejected.

### Customization Level

The customization level of a lookup type determines whether the lookups in that lookup type can be edited. This applies data security to lookups.

Some lookup types are locked so no new codes and other changes can be added during implementation or later, as needed. Depending on the customization level of a lookup type, you may be able to change the codes or their meanings. Some lookups are designated as extensible, so new lookup codes can be created during implementation, but the meanings of predefined lookup codes cannot be modified. Some predefined lookup codes can be changed during implementation or later, as needed.

The customization levels are user, extensible, and system. The following table shows which lookup management tasks are allowed at each customization level.

Allowed Task	User	Extensible	System
Deleting a lookup type	Yes	No	No
Inserting new codes	Yes	Yes	No
Updating start date, end date, and enabled fields	Yes	Yes, only if the code is not predefined data	No
Deleting codes	Yes	Yes, only if the code is not predefined data	No
Updating tags	Yes	No	No
Updating module	Yes	No	No

Predefined data means LAST\_UPDATED\_BY = SEED\_DATA\_FROM\_APPLICATION.

If a product depends on a lookup, the customization level should be system or extensible to prevent deletion.

Once the customization level is set for a lookup type, it cannot be modified. The customization level for lookup types created using the Define Lookups page is by default set at the User level.

### Standard, Common, and Set-Enabled Lookups

The available kinds of lookups are as follows.

Lookup	Description
Standard	Lists the available codes and translated meanings
Set enabled	Additionally associates a reference data set with the lookup codes
Common	Legacy lookups

Standard lookups are the simplest form of lookup types consisting only of codes and their translated meaning. They differ from common lookups only in being defined in the standard lookup view.

Common lookups exist for reasons of backward compatibility and differ from standard lookups only in being defined in the common lookup view.

Set enabled lookup types store lookup codes that are enabled for reference data sharing. At runtime, a set-enabled lookup code is visible because the value of the determinant identifies a reference data set in which the lookup code is present.

### Accessing Lookups

Standard, set-enabled, and common lookups are defined in the Standard, Set-enabled, and Common views, respectively. Applications development may define lookups in an application view to restrict the UI pages where they may appear.

In lookups management tasks, lookups may be associated with a module in the application taxonomy to provide a criteria for narrowing a search or limiting the number of lookups accessed by a product specific task such as Manage Purchasing Lookups.

### Enabling Lookups

A lookup type is reusable for attributes stored in multiple tables.

Enable lookups based on the following.

- Selecting an **Enabled** check box

- Specifying an enabled start date, end date, or both
- Specifying a reference data set determinant

If you make changes to a lookup, users must sign out and back in before the changes take effect. When defining a list of values for display rather than validation, limit the number of enabled lookup codes to a usable length.

## Managing a Standard Lookup: Example

Creating a new standard lookup involves creating or selecting a lookup type to which the lookup code belongs, and determining appropriate values for the lookup codes and their meanings.

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### Note

You can only create or edit the lookup codes for a particular lookup type if its customization level supports it.

---

### Creating a Lookup Type Called COLORS

Your enterprise needs a list of values for status to be used on various objects such as processes or users. The lookups are colors, so the lookup type you create is COLORS.

Lookup type parameters	Value
Lookup type name	COLORS
Meaning	Status
Description	Status by color
Module	Oracle Fusion Middleware Extensions for Applications

The lookup codes you define for the COLORS lookup type are, BLUE, RED, GREEN, and YELLOW.

Lookup Code	Meaning	Enabled	Display Sequence
BLUE	Urgent	No	4
RED	Stop	Yes	1
GREEN	Go	Yes	3
YELLOW	Caution	Yes	2

### Understanding the Resulting Data Entry List of Values

Users need to respond to a process question by indicating whether to stop it, use caution, go ahead, or complete it urgently.

The list of values for the COLORS lookup type includes the meanings for the enabled codes.

Displayed Value	Hidden ID
Stop	RED
Caution	YELLOW
Go	GREEN

### Analysis

The BLUE lookup code was not enabled and does not appear in the list of values. The display sequence of values in the list of values is alphabetical unless you enter a number manually to determine the order of appearance. Number 1 indicates the value listed first in the list of values.

---

### Note

Only lookups that are enabled and active, meaning between start and end dates, are visible.

---

When users enter one of the values from the list of values for the lookup type COLORS, the transaction table records the lookup code. In this example, the code is stored in the Status column

Transaction number	User name	Status
1	Jane	RED
2	Bob	YELLOW
3	Alice	BLUE

The status for one user is BLUE because at the time they entered a value, BLUE was enabled. Disabling a lookup code does not affect transaction records in which that code is stored. Data querying and reporting have access to disabled lookup codes in transaction tables.

## Managing Set-Enabled Lookups: Examples

Creating a new set-enabled lookup is similar to creating a standard lookup with the addition of specifying a reference data set determinant for the lookup codes.

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### Note

You can only create or edit the lookup codes for a particular lookup type if its customization level supports it.

The reference data set for a set-enabled lookup code is part of its foreign key. This is unlike other set-enabled entities.

---

### Selecting a Reference Group for a Set-Enabled Lookup Type

By specifying a reference group for a set-enabled lookup type you indicate which reference data set assignments are available for its lookup codes. For example a COLORS lookup type might be set enabled for a Countries reference group that includes the US and EU reference data set assignments.

## Selecting a Reference Data Set for a Set-Enabled Lookup

The reference data set determines which lookup code is included in the list of values. If a COLORS lookup type contains a RED, YELLOW, ORANGE, and GREEN lookup code, you can enable one RED lookup as coming from the US reference data set and another RED lookup as coming from the EU reference data set with divergent meanings.

Reference Data Set	Lookup Code	Lookup Meaning
US	RED	Red
US	YELLOW	Yellow
US	GREEN	Green
EU	RED	Rouge
EU	ORANGE	Orange

In addition to divergent meanings for lookup codes based on associated reference data set, some lookup codes may be unique to one or another reference data set as the ORANGE lookup is to the EU reference data set in this example.

In another example, a lookup type called HOLD\_REASON provides a list of reasons for applying a hold to a contract renewal. Reference data sets determine which codes are included in the hold reason list of values.

Reference Data Set	Lookup Code	Lookup Meaning
US	SEC	SEC Compliance Review
US	DIR	Needs Director's Approval
US	VP	Needs Vice President's Approval
CHINA	CSRC	Pending China Securities Regulatory Commission Review
CHINA	PR	Needs President's Approval
COMMON	REQUESTED	Customer Request

Using the Manage Set Assignments task, you have defined assignments that designate the China business unit to refer to the CHINA and the US business unit to refer to the US and all business units to refer to the COMMON set. When end users place a contract hold in the US business unit, only the three reason codes in US\_SET are available. When placing a contract hold in the China business, only the two codes in China\_SET are available.

## FAQs for Define Lookups

### How can I edit lookups?

You can edit the existing lookup codes of a lookup type or add new lookup codes on the Define Lookups pages, which you can access by starting in the Setup and Maintenance work area and searching for lookup tasks. You can edit the existing lookup codes of a lookup type, or add new lookup codes to a lookup type, if the customization level for the lookup type supports editing.

## Why can't I see my lookup types?

Lookups are listed by lookup type. Typically lookup types are managed using tasks that handle a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types. The generic tasks provide access to all lookup types of a kind, such as all common lookups using the Manage Common Lookups task.

If existing lookups are not available to the tasks of the Define Lookups activity, they may be validated for use in a lookup view that is not central to all applications or whose owning application has not been specified in a lookup view.

Lookups can only be managed in the Define Lookups tasks if the lookup's view application is the standard lookups view, common lookups view, or set-enabled lookups view. Lookups defined in an application view can only be managed by following instructions provided by the owning application.

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### Note

A lookup type and its codes can only be defined in one lookup view.

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## What's the difference between a lookup type and a value set?

A lookup type consists of lookup codes that are the values in a static list of values. Lookup code validation is a one to one match.

A table-validated value set can consist of values that are validated through a SQL statement, which allows the list of values to be dynamic.

---

### Tip

A table validated value set can be defined based on any table, including the lookups table. This allows a lookup type to be made into a table-validated value set that can be used in flexfields.

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Area of Difference	Lookup Type	Value Set
List of values	Static	Dynamic if Table validation type
Validation of values	One to one match of meaning to code included in a lookup view, or through the determinant of a reference data set	By format or inclusion in a table
Format type of values	char	varchar2, number, and so on
Length of value	Text string up to 30 characters	Any type of variable length from 1 to 4000
Duplication of values	Never. Values are unique.	Duplicate values allowed
Management	Managed by both administrators and end-users, except system lookups or predefined lookups at the system customization level, which cannot be modified.	Maintained by administrators, except some product flexfield codes, such as GL for Oracle Fusion General Ledger, which are maintained by end users

A lookup type cannot make use of a value from a value set.

Value sets can make use of standard, common, or set-enabled lookups.

Both lookup types and value sets are used to create lists of values from which users select values.

### **What's a lookup tag used for?**

Tags on lookup codes allow you to add a label to your lookup codes.

Lookup tags are unvalidated and uninterpreted by lookups. A tag can be used to categorize lookups based on facilitating searches or guiding how a lookup should be used.

Document what the tag on a lookup represents and how to use it.

## **Manage Messages**

### **Messages: Highlights**

The message dictionary contains messages that tell users about business rule errors, such as missing or incorrect data, and how to resolve them, to warn users about the consequences of intended actions, and provide information in log files. These messages are defined for specific applications and modules, but a few are common messages that can be used in any application. All applications also use messages stored outside of the message dictionary.

The message dictionary is described in the Oracle Fusion Applications Developer's Guide, and other messages in the Oracle Fusion Middleware Web User Interface Developer's Guide for Oracle Application Development Framework.

#### **Managing Messages**

- Use the Manage Messages page to create and edit custom messages in the message dictionary, as well as edit predefined messages. Do not delete predefined messages unless you are sure that they are not used anywhere. Refer to the Oracle Fusion Applications Developer's Guide.

See: Introduction to Message Dictionary Messages

- Messages outside of the message dictionary, for example confirmations and field validations, are managed in Oracle Application Development Framework Faces components or through message resource bundles used for translation. Refer to the Oracle Fusion Middleware Web User Interface Developer's Guide for Oracle Application Development Framework.

See: Displaying Hints and Error Messages for Validation and Conversion

See: Internationalizing and Localizing Pages

## Creating and Editing Messages: Highlights

Each message in the message dictionary has many attributes and components, including message properties, text, and tokens, that you define when creating or editing the message.

Details about these messages are described in the Oracle Fusion Applications Developer's Guide.

### Message Properties

- The message type identifies the type of information that the message contains.

See: Understanding Message Types

- The message name and number are identifiers for the message. There are specific message number ranges for predefined messages in each application, and you should not edit numbers assigned to predefined messages. When creating custom messages, use only message numbers within the 10,000,000 to 10,999,999 range.

See: About Message Names

See: About Message Numbers

- The translation notes for predefined messages might contain internal content that you can disregard.

See: About Translation Notes

- The message category, severity, and logging enabled option are related to the incident and logging process.

See: About Grouping Messages by Category and Severity

See: Understanding Incidents and Diagnostic Logs with Message Dictionary

### Message Text and Tokens

- The message text comprises various components, some of which are displayed only to select users. To determine which component of the message text is displayed to a particular user, set the Message Mode profile option (FND\_MESSAGE\_MODE) at the user level for that user. The message component short text is visible to all users and therefore, the profile option does not apply to this component. Also, the profile option applies only to messages in the message dictionary.

See: About Message Components

- Tokens are variables that represent values to be displayed in the message text.

See: About Tokens

## Common Messages: Points to Consider

Common messages, which have message names that begin with FND\_CMN and message numbers between 0 and 999, are used throughout Oracle Fusion Applications. Each common message can appear in multiple places in any product family. For example, the FND\_CMN\_NEW\_SRCH message can be used for any search to indicate that no results were found. Common messages that are of type error or warning are part of the message dictionary.

### Editing Common Messages

Because a common message can be used in any application, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, make sure that the text would make sense to all users across Oracle Fusion Applications who might see it.

### Creating Common Messages

You can create custom common messages for use in multiple places within a single product. Do not begin the message name with FND\_CMN, but use another suitable convention. The message number should be within the range that is designated for the product.

## Define ISO Reference Data

### Defining Currencies: Points to Consider

When creating or editing currencies, consider these points relevant to entering the currency code, date range, or symbol for the currency.

#### Currency Codes

You cannot change a currency code after you enable the currency, even if you later disable that currency.

#### Date Ranges

Users can enter transactions denominated in the currency only for the dates within the specified range. If you do not enter a start date, then the currency is valid immediately. If you do not enter an end date, then the currency is valid indefinitely.

#### Symbols

Even if you enter a symbol for a currency, the symbol is not always displayed when an amount is displayed in this currency. Some applications use currency

symbols when displaying amounts. Others, like Oracle Fusion General Ledger, do not.

## Euro Currency Derivation: Explained

Use the Derivation Type, Derivation Factor, and Derivation Effective Date fields to define the relationship between the official currency (Euro) of the European Monetary Union (EMU) and the national currencies of EMU member states. For each EMU currency, you define its Euro-to-EMU fixed conversion rate and the effective starting date.

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### Note

If you need to use a different currency code for Euro, you can disable the predefined Euro currency and create a new one.

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### Derivation Type

The **Euro currency** derivation type is used only for the Euro, and the **Euro derived** derivation type identifies national currencies of EMU member states. All other currencies do not have derivation types.

### Derivation Factor

The derivation factor is the fixed conversion rate by which you multiply one Euro to derive the equivalent EMU currency amount. The Euro currency itself should not have a derivation factor.

### Derivation Effective Date

The derivation effective date is the date on which the relationship between the EMU currency and the Euro begins.

## Natural Languages: Points to Consider

Natural languages are all the languages that humans use, written and spoken. If a language is enabled, then users can associate it with entities, for example as languages spoken by sales representatives. When managing natural languages, consider tasks to perform and best practices for entering particular values.

### Tasks

Once you add a language, it cannot be deleted, just disabled. You can optionally associate natural languages with International Organization for Standardization (ISO) languages and territories, just for reference.

### Values

When you create a natural language, use the alpha-2 ISO code as the language code, or, if not available, then alpha-3. If the language is not an ISO language, then use **x-** as a prefix for the code, for example **x-ja** for a Japanese dialect.

Use the **sgn** code of ISO-639-2 for sign languages, followed by territory code, for example **sgn-US** for American Sign Language. You can also use Internet Assigned Numbers Authority (IANA) language tags.

The natural language description should be the language name with territory name in parenthesis where needed, for example **English (Australia)** and **English (Canada)**.

## **FAQs for Define ISO Reference Data**

### **When do I create or edit territories?**

Edit territory descriptions to determine how they are displayed in lists of country values throughout Oracle Fusion Applications. The predefined territories are all countries from the International Organization for Standardization (ISO) 3166 standard. You usually would not edit territory names or codes.

Do not edit National Language Support (NLS) territory codes, which are identifiers used in the system, unless you need to change the association between ISO and system territory. You usually would not edit the default currency, which is the value that defaults in the **Currency** field in Oracle Fusion Applications user preferences after the user first selects a territory.

Create territories if new countries emerge and the system has not yet been patched with the latest ISO country values.

### **When do I create or edit industries?**

Edit industry descriptions to determine how they are displayed in Oracle Fusion Applications. You usually would not edit industry names, which are from the North American Industry Classification System (NAICS). Enabled industries are mainly used in the context of customization, though these values can also appear in any application.

Create industries if you have particular ones you need, for example for customization, that are not included in the NAICS standard.

### **When do I associate industries with territories?**

Optionally associate industries with territories to provide an industry in territory value, used for customization. For example, administrators can customize a page in one way for users within an industry in one country, and another way for users within the same industry in another country. The administrator would select the appropriate industry in territory value to set the customization context.

### **When do I create or enable currencies?**

Create currencies to use, for example for reporting purposes, if they are not already provided. All currencies from the International Organization for Standardization (ISO) 4217 standard are provided.

Enable any currency other than USD for use in Oracle Fusion Applications, for example for displaying monetary amounts, assigning to sets of books, entering transactions, and recording balances. Only USD is enabled by default.

## **What's the difference between precision, extended precision, and minimum accountable unit for a currency?**

Precision is the number of digits to the right of the decimal point used in regular currency transactions. Extended precision is the number of digits to the right of the decimal point used in calculations for this currency, and it must be greater than or equal to the standard precision. For example, USD would have 2 for precision because amounts are transacted as such, for example \$1.00. For calculations, for example adding USD amounts, you might want the application to be more precise than two decimal digits, and would enter an extended precision accordingly.

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### **Note**

Some applications use extended precision. Others, such as Oracle Fusion General Ledger, do not.

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Minimum accountable unit is the smallest denomination for the currency. For example, for USD that would be .01 for the cent. This unit does not necessarily correspond to the precision for all currencies.

## **What's a statistical unit currency type?**

The statistical unit currency type is used only for the Statistical (STAT) currency. The Statistical currency is used to record statistics such as the number of items bought and sold. Statistical balances can be used directly in financial reports, allocation formulas, and other calculations.

## **When do I create or edit ISO languages?**

You can edit the names and descriptions of International Organization for Standardization (ISO) languages to determine how they are displayed in lists of ISO language values in Oracle Fusion Applications. The ISO languages are from the ISO 639 standard. If there were changes to the ISO standard and the system has not yet been patched with the latest ISO values, you can update the ISO alpha-2 code or add languages as needed.

## **When do I edit languages?**

Installed languages automatically appear on the Manage Languages page, so you do not manually enter newly installed languages. This page contains all languages available for installation and translation in Oracle Fusion Applications. Each dialect is treated as a separate language. The language codes and names are values used by the system.

You generally would not edit any of the detailed fields unless you really need to and know what they are.

## **When do I create or edit time zones?**

Though all standard time zones are provided, optionally enable only a subset for use in lists of time zone values in Oracle Fusion Applications. You can add time

zones if new zones became standard and the system has not yet been patched with the latest values.

## Manage Data Security Policies

### Data Security in the Security Reference Implementation: Explained

The reference implementation contains a set of data security policies that can be inspected and confirmed to be suitable or a basis for further implementation using the Authorization Policy Manager (APM).

The security implementation of an enterprise is likely a subset of the reference implementation, with the enterprise specifics of duty roles, data security policies, and HCM security profiles provided by the enterprise.

The business objects registered as secure in the reference implementation are database tables and views.

Granting or revoking object entitlement to a particular user or group of users on an object instance or set of instances extends the base Oracle Fusion Applications security reference implementation without requiring customization of the applications that access the data.

#### Data Security Policies in the Security Reference Implementation

The data security policies in the reference implementation entitle the grantee (a role) to access instance sets of data based on SQL predicates in a WHERE clause.

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#### Tip

When extending the reference implementation with additional data security policies, identify instance sets of data representing the business objects that need to be secured, rather than specific instances or all instances of the business objects.

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Predefined data security policies are stored in the data security policy store, managed in the Authorization Policy Manager (APM), and described in the Oracle Fusion Applications Security Reference Manual for each offering. A data security policy for a duty role describes an entitlement granted to any job role that includes that duty role.

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#### Warning

Review but do not modify HCM data security policies in APM except as a custom implementation. Use the HCM Manage Data Role And Security Profiles task to generate the necessary data security policies and data roles.

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The reference implementation only enforces a portion of the data security policies in business intelligence that is considered most critical to risk management without negatively affecting performance. For performance reasons it is not practical to secure every level in every dimension. Your enterprise

may have a different risk tolerance than assumed by the security reference implementation.

### **HCM Security Profiles in the Security Reference Implementation**

The security reference implementation includes some predefined HCM security profiles for initial usability. For example, a predefined HCM security profile allows line managers to see the people that report to them.

The IT security manager uses HCM security profiles to define the sets of HCM data that can be accessed by the roles that are provisioned to users

### **Data Roles**

The security reference implementation includes no predefined data roles to ensure a fully secured initial Oracle Fusion Applications environment.

The security reference implementation includes data role templates that you can use to generate a set of data roles with entitlement to perform predefined business functions within data dimensions such as business unit. Oracle Fusion Payables invoicing and expense management are examples of predefined business functions. Accounts Payable Manager - US is a data role you might generate from a predefined data role template for payables invoicing if you set up a business unit called US.

HCM provides a mechanism for generating HCM related data roles.

## **Data Security: Explained**

By default, users are denied access to all data.

Data security makes data available to users by the following means.

- Policies that define grants available through provisioned roles
- Policies defined in application code

You secure data by provisioning roles that provide the necessary access. Enterprise roles provide access to data through data security policies defined for the inherited application roles.

When setting up the enterprise with structures such as business units, data roles are automatically generated that inherit job roles based on data role templates. Data roles also can be generated based on HCM security profiles. Data role templates and HCM security profiles enable defining the instance sets specified in data security policies.

When you provision a job role to a user, the job role implicitly limits data access based on the data security policies of the inherited duty roles. When you provision a data role to a user, the data role explicitly limits the data access of the inherited job role to a dimension of data.

Data security consists of privileges conditionally granted to a role and used to control access to the data. A privilege is a single, real world action on a

single business object. A data security policy is a grant of a set of privileges to a principal on an object or attribute group for a given condition. A grant authorizes a role, the grantee, to actions on a set of database resources. A database resource is an object, object instance, or object instance set. An entitlement is one or more allowable actions applied to a set of database resources.

Data is secured by the following means.

Data security feature	Does what?
Data security policy	Grants access to roles by means of entitlement
Role	Applies data security policies with conditions to users through role provisioning.
Data role template	Defines the data roles generated based on enterprise setup of data dimensions such as business unit.
HCM security profile	Defines data security conditions on instances of object types such as person records, positions, and document types without requiring users to enter SQL code
Masking	Hides private data on non-production database instances
Encryption	Scrambles data to prevent users without decryption authorization from reading secured data

The sets of data that a user can access via roles are defined in Oracle Fusion Data Security. Oracle Fusion Data Security integrates with Oracle Platform Security Services (OPSS) to entitle users or roles (which are stored externally) with access to data. Users are granted access through the entitlement assigned to the roles or role hierarchy with which the user is provisioned. Conditions are WHERE clauses that specify access within a particular dimension, such as by business unit to which the user is authorized.

### Data Security Policies

Data security policies articulate the security requirement "Who can do What on Which set of data," where 'Which set of data' is an entire object or an object instance or object instance set and 'What' is the object entitlement.

For example, accounts payable managers can view AP disbursements for their business unit.

Who	can do	what	on which set of data
Accounts payable managers	view	AP disbursements	for their business unit

A data security policy is a statement in a natural language, such as English, that typically defines the grant by which a role secures business objects. The grant records the following.

- Table or view
- Entitlement (actions expressed by privileges)

- Instance set (data identified by the condition)

For example, disbursement is a business object that an accounts payable manager can manage by payment function for any employee expenses in the payment process.

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**Note**

Some data security policies are not defined as grants but directly in applications code. The security reference manuals for Oracle Fusion Applications offerings differentiate between data security policies that define a grant and data security policies defined in Oracle Fusion applications code.

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A business object participating in a data security policy is the database resource of the policy.

Data security policies that use job or duty roles refer to data security entitlement.

For example, the data security policy for the Accounts Payable Manager job role refers to the view action on AP disbursements as the data security entitlement.

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**Important**

The duty roles inherited by the job role can be moved and job roles reassembled without having to modify the data security.

---

As a security guideline, data security policies based on user session context should entitle a duty role. This keeps both function and data security policies at the duty role level, thus reducing errors.

For example, a Sales Party Management Duty can update Sales Party where the provisioned user is a member of the territory associated with the sales account. Or the Sales Party Management Duty can update Sales Party where the provisioned user is in the management chain of a resource who is on the sales account team with edit access. Or the Participant Interaction Management Duty can view an Interaction where the provisioned user is a participant of the Interaction.

For example, the Disbursement Process Management Duty role includes entitlement to build documents payable into payments. The Accounts Payable Manager job role inherits the Disbursement Process Management Duty role. Data security policies for the Disbursement Process Management Duty role authorize access to data associated with business objects such as AP disbursements within a business unit. As a result, the user provisioned with the Accounts Payable Manager job role is authorized to view AP disbursements within their business unit.

A data security policy identifies the entitlement (the actions that can be made on logical business objects or dashboards), the roles that can perform those actions, and the conditions that limit access. Conditions are readable WHERE clauses. The WHERE clause is defined in the data as an instance set and this is then referenced on a grant that also records the table name and required entitlement.

**Data Roles**

Data roles are implemented as job roles for a defined set of data.

A data role defines a dimension of data within which a job is performed. The data role inherits the job role that describes the job. For example, a data role entitles a user to perform a job in a business unit.

The data role inherits abstract or job roles and is granted data security privileges. Data roles carry the function security privileges inherited from job roles and also the data security privilege granted on database objects and table rows.

For example, an accounts payables specialist in the US Business Unit may be assigned the data role Accounts Payables Specialist - US Business Unit. This data role inherits the job role Accounts Payables Specialist and grants access to transactions in the US Business Unit.

A data role may be granted entitlement over a set people.

For example, a Benefits Administrator A-E is allowed to administer benefits for all people that have a surname that begins with A-E.

Data roles are created using data role templates. You create and maintain data roles in the Authorization Policy Manager (APM). Use the Manage Data Roles and Security Profiles task to create and maintain HCM data roles in Oracle Fusion HCM.

### **HCM Security Profiles**

HCM security profiles are used to secure HCM data, such as people and departments. You use HCM security profiles to generate grants for an enterprise role. The resulting data role with its role hierarchy and grants operates in the same way as any other data role.

For example, an HCM security profile identifies all employees in the Finance division.

Oracle Fusion Payroll uses HCM security profiles to secure project organizations. Applications outside of HCM can use the HCM Data Roles UI pages to give their roles access to HR people.

### **Masking and Encryption**

Oracle Fusion Applications uses masking to protect sensitive data from view by unauthorized users. Encryption APIs mask sensitive fields in applications user interfaces. Additionally, Oracle Data Masking is available for masking data in non-production instances and Oracle Transparent Data Encryption is available for protecting data in transit or in backups independent of managing encryption keys.

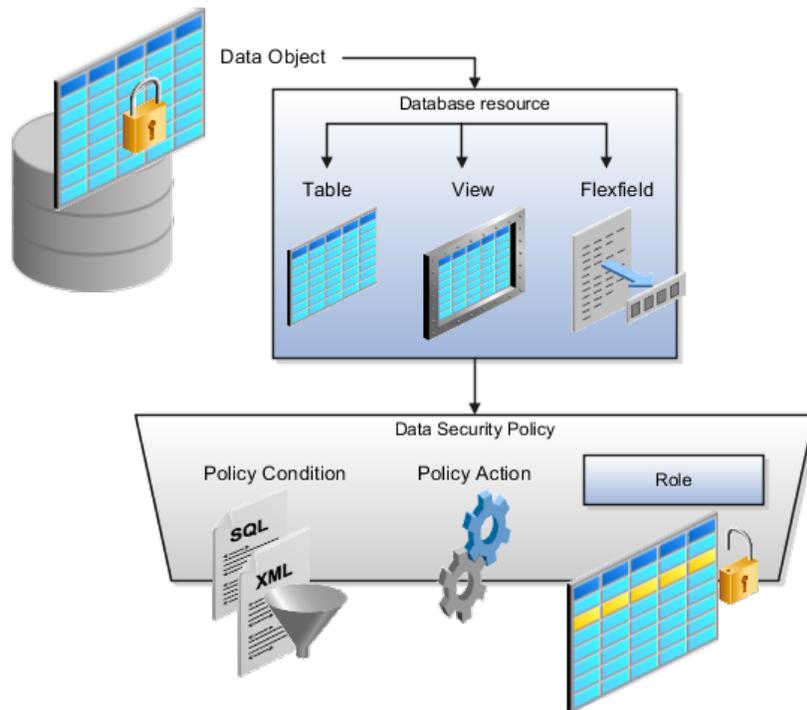
## **Database Resources and Data Security Policies: How They Work Together**

A data security policy applies a condition and allowable actions to a database resource for a role. When that role is provisioned to a user, the user has access to data defined by the policy. In the case of the predefined security reference implementation, this role is always a duty role. Data roles generated to inherit

the job role based on data role templates limit access to database resources in a particular dimension, such as the US business unit.

The database resource defines and instance of a data object. The data object is a table, view, or flexfield.

The following figure shows the database resource definition as the means by which a data security policy secures a data object. The database resource names the data object. The data security policy grants to a role access to that database resource based on the policy's action and condition.



## Database Resources

A database resource specifies access to a table, view, or flexfield that is secured by a data security policy.

- Name providing a means of identifying the database resource
- Data object to which the database resource points

## Data Security Policies

Data security policies consist of actions and conditions for accessing all, some, or a single row of a database resource.

- Condition identifying the instance set of values in the data object
- Action specifying the type of access allowed on the available values

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### Note

If the data security policy needs to be less restrictive than any available database resource for a data object, define a new data security policy.

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## Actions

Actions correspond to privileges that entitle kinds of access to objects, such as view, edit, or delete. The actions allowed by a data security policy include all or a subset of the actions that exist for the database resource.

## Conditions

A condition is either a SQL predicate or an XML filter. A condition expresses the values in the data object by a search operator or a relationship in a tree hierarchy. A SQL predicate, unlike an XML filter, is entered in a text field in the data security user interface pages and supports more complex filtering than an XML filter, such as nesting of conditions or sub queries. An XML filter, unlike a SQL predicate, is assembled from choices in the UI pages as an AND statement.

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### Tip

An XML filter can be effective in downstream processes such as business intelligence metrics. A SQL predicate cannot be used in downstream metrics.

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## Securing Data Access: Points to Consider

Oracle Fusion Applications supports securing data through role-based access control (RBAC) by the following methods.

Method of securing data	Reason	Example
Data roles apply explicit data security policies on job and abstract roles	Appropriate for job and abstract roles that should only access a subset of data, as defined by the data role template that generates the data role or by HCM security profiles.	Accounts Payable Manager - US data role to provide an accounts payable manager in the US business unit with access to invoices in the US business unit.
Data security policies	Define data access for application roles and provide inheriting job and abstract roles with implicit data security	Projects

If a user has access to the same function through different roles that access different data sets, then the user has access to a union of those data sets.

When a runtime session is created, Oracle Platform Security Services (OPSS) propagates only the necessary user to role mapping based on Oracle Fusion Data Security grants. A grant can specify entitlement to the following.

- Specific rows of data (data object) identified by primary key
- Groups of data (instance set) based on a predicate that names a particular parameter
- Data objects or instance sets based on runtime user session variables

Data is either identified by the primary key value of the row in the table where the data is stored. Or data is identified by a rule (SQL predicate) applied to the WHERE clause of a query against the table where the data is stored.

## Grants

Oracle Fusion Data Security can be used to restrict the following.

- Rows that are returned by a given query based on the intended business operation
- Actions that are available for a given row

Grants control which data a user can access.

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### Note

Attribute level security using grants requires a data security policy to secure the attribute and the entitlement check enforces that policy.

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A grant logically joins a user or role and an entitlement with a static or parameterized object instance set. For example, `REGION='WEST'` is a static object instance set and `REGION=&GRANT_ALIAS.PARAMETER1` is a parameterized object instance set. In the context of a specific object instance, grants specify the allowable actions on the set of accessible object instances. In the database, grants are stored in `FND_GRANTS` and object instance sets are stored in `FND_OBJECT_INSTANCE_SETS`. Object access can be tested using the privilege check application programming interface (API).

## Securing a Business Object

A business object is a logical entity that is typically implemented as a table or view, and corresponds to a physical database resource. The data security policies of the security reference implementation secure predefined database resources. Use the Manage Data Security Policies task to define and register other database resources.

Data security policies identify sets of data on the registered business object and the actions that may be performed on the business object by a role. The grant can be made by data instance, instance set or at a global level..

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### Note

Use parameterized object instance sets whenever feasible to reduce the number of predicates the database parses and the number of administrative intervention required as static object instances sets become obsolete. In HCM, security profiles generate the instance sets.

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## Data Role Templates: Explained

You use data role templates to generate data roles. You generate such data roles, and create and maintain data role templates in the Authorization Policy Manager (APM).

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**Note**

HCM data roles are generated using the Manage Data Roles and Security Profiles task, which uses HCM security profiles, not data role templates, to define the data security condition.

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The following attributes define a data role template.

- Template name
- Template description
- Template group ID
- Base roles
- Data dimension
- Data role naming rule
- Data security policies

The data role template specifies which base roles to combine with which dimension values for a set of data security policies. The base roles are the parent job or abstract roles of the data roles.

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**Note**

Abstract, job, and data roles are enterprise roles in Oracle Fusion Applications. Oracle Fusion Middleware products such as Oracle Identity Manager (OIM) and Authorization Policy Manager (APM) refer to enterprise roles as external roles. Duty roles are implemented as application roles in APM and scoped to individual Oracle Fusion Applications.

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The dimension expresses stripes of data, such as territorial or geographic information you use to partition enterprise data. For example, business units are a type of dimension, and the values picked up for that dimension by the data role template as it creates data roles are the business units defined for your enterprise. The data role template constrains the generated data roles with grants of entitlement to access specific data resources with particular actions. The data role provides provisioned users with access to a dimensional subset of the data granted by a data security policy.

An example of a dimension is a business unit. An example of a dimension value is a specific business unit defined in your enterprise, such as US. An example of a data security policy is a grant to access a business object such as an invoice with a view entitlement.

When you generate data roles, the template applies the values of the dimension and participant data security policies to the group of base roles.

The template generates the data roles using a naming convention specified by the template's naming rule. The generated data roles are stored in the Lightweight Directory Access Protocol (LDAP) store. Once a data role is generated, you provision it to users. A user provisioned with a data role is granted permission to access the data defined by the dimension and data security grant policies of the data role template.

For example, a data role template contains an Accounts Payable Specialist role and an Accounts Payable Manager role as its base roles, and region as its dimension, with the dimension values US and UK. The naming convention is [base-role-name]:[DIMENSION-CODE-NAME]. This data role template generates four data roles.

- Accounts Payable Specialist - US (business unit)
- Accounts Payable Specialist - UK (business unit)
- Accounts Payable Manager - US (business unit)
- Accounts Payable Manager - UK (business unit)

### **Making Changes To Data Role Templates**

If you add a base role to an existing data role template, you can generate a new set of data roles. If the naming rule is unchanged, existing data roles are overwritten.

If you remove a base role from a data role template and regenerate data roles, a resulting invalid role list gives you the option to delete or disable the data roles that would be changed by that removal.

### **Making Changes to Dimension Values**

If you add a dimension value to your enterprise that is used by a data role template, you must regenerate roles from that data role template to create a data role for the new dimension. For example if you add a business unit to your enterprise, you must regenerate data roles from the data role templates that include business unit as a dimension.

If you add or remove a dimension value from your enterprise that is used to generate data roles, regenerating the set of data roles adds or removes the data roles for those dimension values. If your enterprise has scheduled regeneration as an Oracle Enterprise Scheduler Services process, the changes are made automatically.

For information on working with data role templates, see the Oracle Fusion Middleware Administrator's Guide for Authorization Policy Manager (Oracle Fusion Applications Edition).

## **Define Document Sequences**

### **Document Sequences: Explained**

In Oracle Fusion Applications, each business document or business event is uniquely identified by a document sequence number that you assign to it. However, the document sequencing feature must be turned on (enabled) on the business document or event to allow the assignment. For example, if document sequencing is enabled, you can assign a document sequence number

to an invoice that gets generated in response to a purchase order. You can use document sequences as a proof to track successfully executed transactions as well as failed transactions. Additionally, a document sequence helps in generating an audit trail, which can be used to identify how a particular transaction passed through various applications.

Document sequencing can be managed automatically, manually, and gaplessly.

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**Note**

Plan your document sequencing carefully before you use the options available in the application to apply sequence numbers. Avoid changes to the options after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

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**Automatic Sequencing**

Automatic document sequencing assigns a unique number to each document as it is generated, and this unique number is stored in the database. The numbering is sequential by date and time of creation. If you define a sequence to automatically number documents, you can provide an initial value to begin the sequence. In absence of a custom value, the default value 1 is used.

**Manual Sequencing**

Manual sequencing requires you to assign a unique number to each document before it is generated. In manual sequencing, the numerical ordering and completeness of a transaction is not enforced. Users can skip or omit numbers when entering the sequence value. However, each time that a number is assigned, the application validates its uniqueness.

**Gapless Sequencing**

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. As a result, the sequence is maintained for all the documents that are generated, and no sequence numbers are lost due to incomplete or failed document generation.

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**Important**

Use this type of sequencing only if necessary because it may affect the performance of the system and slow down transaction processing.

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**Sequential Numbering Enforced Profile Options**

The Sequential Numbering Enforced profile validates the documents being created and applies the relevant document sequence, based on the selected option. The following options are available:

- **Always Used:** Sequential numbering is enforced for all document categories. When this option is set, users cannot create a document if its document category is not assigned any active document sequence. The system displays an error.
- **Partially Used:** Sequential numbering is enforced for all document categories. However, if no sequence is available for the document, the

system displays a warning. Users can either proceed without a document sequence or create and assign a document sequence before proceeding.

- **Not Used:** Sequential numbering is not enforced. In this mode, although the documents created do not require a document sequence to be assigned, the system checks for the uniqueness of the document number provided. The system does not display any warning or error.

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#### **Restriction**

At the site level, the profile is by default set to Partially Used. Avoid changing this option as doing so may interfere with the validation logic and the data that was stored using the earlier option may not appear. However, you can change the option at the product or user level.

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## **Document Sequence Categories: Explained**

A document sequence category is a set of documents that share similar characteristics and that are formed into a logical group. Document sequence categories simplify the task of assigning number sequences to specific documents. Instead of assigning a number to each document, you assign a document sequence to one or more document sequence categories. The document sequence category automatically takes care of numbering the documents.

A document sequence category identifies the database table that stores documents resulting from transactions that your users enter. When you assign a sequence to a category, the sequence numbers the documents that are stored in a particular table. You must create document sequence categories to be able to manage the task of assigning document sequences.

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#### **Restriction**

Once a document sequence category is created, you cannot change the application, the category code, or the table name. Therefore, carefully consider these details and plan your document sequencing requirement before you begin working with the application.

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Once you create a document sequence category, it is available for use under the **Document Sequences: Assignments** section on the Manage Document Sequences page. The **Category** field contains the name of the document sequence category. After you create a document sequence, you can assign it to a document sequence category.

## **Document Sequences: Points to Consider**

Sequencing documents is an important business and legal requirement. Certain aspects of the defining process are permanent and cannot be modified later. Therefore, it is important that you first decide the appropriate document sequence to use for a set of documents. You must also decide beforehand the type of document sequencing, because you are not allowed to switch to other types once a sequence is assigned to a document sequence category. Make a

note of the details such as the document sequence and document sequence category so that you can refer to them at a later point in time. Also note if there are any restrictions or configuration prerequisites before you define document sequencing.

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### Note

Products that implement document sequencing have specifications about its usage. Refer to the corresponding product documentation for specific details and also to determine if there are any restrictions or configuration prerequisites.

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## Creating and Editing Document Sequences

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. If the end date is left blank, it means that the sequence definition never expires. Among the several options used in creating and editing document sequences, the following options are functionally more important and therefore need to be carefully determined:

- **Determinant Type:** Select to limit the document sequencing activity to certain documents that belong to a specific business entity, such as Ledger, Tax Registration, and so on.
- **Initial Value:** Enter a value for the first document in your sequence. This field applies only to sequences with automatic or gapless numbering types. Sequence numbers should not be greater than eight digits. If you leave this field blank, the first document is automatically assigned a value of 1. Once a document sequence is defined, you cannot change this initial value.

## Creating and Editing Document Sequence Categories

Document sequence categories are defined to make it easy to assign document sequence definitions to a group of documents instead of to individual documents. Each document sequence category is mapped to a specific table, where the documents belonging to that category are stored. The table must already be enabled for document sequencing. When specifying the table, you must consider the following points:

- When the sequential numbering feature checks for completeness or generates a report, it locates the category's documents in the table.
- You can select only tables belonging to the application associated with the category.
- Once a category is defined, you cannot change the choice of table.

## Assigning Document Sequences

Identify the documents to be numbered before assigning them a document sequence. For each document sequence, there can be only one active assignment to a document sequence category, a method code, and a determinant value (if applicable). As part of the assignment, specify whether the document is created automatically (for example, due to a batch process, or manually through a

form). If you do not specify an end date, the assignment continues to remain active throughout the process cycle. If a determinant type was specified for the document sequence, then enter a specific determinant value related to the selected determinant type.

At runtime, when users create documents, the document sequence to be assigned is determined by finding the active assignment that matches the correct combination of category, numbering method, and the date range containing the transaction date.

### **Auditing Document Sequences**

You can audit document sequences, if required, to provide an audit trail of the document sequences used in a specific product. However, before enabling the audit functionality for a document sequence, you must have created an audit table for the specific document sequence, using appropriate details. Enabling the audit functionality is permitted only for newly created document sequences. You cannot audit document sequences that are already in use by a specific product.

For more information about defining a document sequence audit table, see the Oracle Fusion Applications Developer's Guide.

## **Define Trees**

### **Trees: Overview**

Use the tree management feature in Oracle Fusion applications to organize data into hierarchies. A hierarchy contains organized data and enables the creation of groups and rollups of information that exist within an organization. Trees are hierarchical structures that enable several data management functions such as better access control, application of business rules at various levels of hierarchies, improved query performance, and so on.

For example, XYZ Corporation has two departments: Marketing and Finance. The Finance department has two functional divisions: Receivables and Payables. Defining a tree for the XYZ Corporation establishes a hierarchy between the organization and its departments, and between the departments and their respective functional divisions. Such a hierarchical modeling of organizational data could be used for executing several data management functions within that organization.

You can create one or more versions of trees, and they can be labeled for better accessibility and information retrieval. You can create trees for multiple data sources, which allow the trees to be shared across Oracle Fusion applications.

#### **Tree Structures**

A tree structure is a representation of the data hierarchy, and guides the creation of a tree. A tree is an instance of the hierarchy as defined in the tree structure. Tree structures enable you to enforce business rules to which the data must adhere.

The root node is the topmost node of a tree. Child nodes report to the root node. Child nodes at the same level, which report to a common parent node, are called

siblings. Leaves are details branching off from a node but not extending further down the tree hierarchy.

### **Tree Versions**

A tree is created having only one version. However, users can create more than one tree version depending on the need, and they can make changes to those versions. Depending on varying requirements, users can create one or more tree versions and publish all of them or some of them by making the versions active at the same time. Similar to any other version control system, versions of trees are maintained to keep track of all the changes that a tree undergoes in its life cycle.

### **Tree Labels**

Tree labels are short names associated with trees and tree structures and point directly to the data source. Tree labels are automatically assigned to the tree nodes. You can store labels in any table and register the label data source with the tree structure.

## **Manage Tree Structures**

### **Tree Structures: Explained**

A tree structure defines the hierarchy for creating trees and prescribes rules based on which trees are created, versioned, and accessed. You can associate multiple data sources with a tree structure. A tree is an instance of this hierarchy. Every tree structure can contain one or more trees.

You can create tree structures specific to an application but you can share tree structures across applications. If you apply version control to the tree structure, it is carried over to the trees that are based on the tree structure. Each tree version contains at least one root node. Occasionally, a tree version may have more than one root node.

An administrator controls the access to tree structures through a set of rules that are periodically audited for validity.

### **Tree Structure Definition: Points to Consider**

Defining a tree structure involves specifying several important pieces of information on the **Create Tree Structure: Specify Definition** page.

#### **Tree Node Selection**

The **Tree Node** table displays data in nodes that exist in the data hierarchy. You must select the correct and most appropriate tree node table to be able to define the tree structure, based on the tree hierarchy you want to establish. This selection also affects the level of security that is set on a tree node and its child entities.

#### **Tree Sharing Mode**

The following options are used to determine the mode of sharing a tree structure across the applications.

- Open: Indicates that the tree is associated with all reference data sets.
- Set ID: Indicates that the tree will be associated with a specific reference data set.

### Creation Mode

Indicates the source where the tree structure is being defined. For predefined tree structures select Oracle and for custom structures, select Customers.

### Customization

You can customize the predefined tree structures as well as the ones that you created. However, customizing the predefined tree structures involves certain level of access restrictions, and will be limited to specific tree nodes and downwards in hierarchy.

### Multiple Tree Versions

One or more trees and tree versions can be based on a tree structure. A tree structure can have one or more trees and tree versions based on it. Usually, only one active version is permitted at any given point of time. However, depending on the requirement, you can allow two or more tree versions to be in the active state for the same date range. This flexibility allows you to choose the tree version that you want to implement.

## Managing Tree Structures: Points to Consider

You can create, edit, and delete tree structures depending upon the requirement. You can also audit and change the status a tree structure.

### Creating and Editing Tree Structures

You can create trees on the basis of a tree structure. When you edit an active tree structure, the status of the tree structure and all associated trees and their versions change to draft. To reuse a tree structure, you can create a copy of it without copying the associated trees and tree versions. If you delete a tree structure, all the associated trees and tree versions are automatically deleted.

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#### Note

For specific information on working with the predefined tree structures that exist in an Oracle Fusion application, refer to the specific product documentation.

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### Setting Status

If you change the status of a tree structure, the status of the trees and tree versions associated with that tree structure also changes.

The following table lists the different statuses of a tree structure.

Status	Meaning
Draft	Yet to be published or is in a modified state.

Active	In use and based on which one or more trees or tree versions are created.
Inactive	Not in use.

## Tree Structure Audit Results: Explained

Use the tree structure audit results to verify the tree structure's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

### Running an Audit

Setting the status of a tree structure to active automatically triggers an audit of that tree structure. You can also manually trigger an audit on the manage Tree Structures page, using **Actions - Audit**. The Tree Structure Audit Result table shows a list of validations that ran against the selected tree structure.

### Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Restrict By Set ID	On the Manage Tree Structures: Specify Data Sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have a reference data set attribute. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain a reference data set attribute.	If reference data set restriction is required for this tree structure, include a reference data set attribute on all data sources. Otherwise, deselect the check box.
Row Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid row flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_RF</code> or a custom table.	<ul style="list-style-type: none"> <li>• The specified table does not exist in the database.</li> <li>• The specified table does not contain the same columns as the <code>FND_TREE_NODE_RF</code> table.</li> </ul>	Correct the row flattened table definition.

<p>Available Label Data Sources</p>	<p>On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, the label data source view object specified for each data source must be accessible, and the primary keys must be valid. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.</p>	<ul style="list-style-type: none"> <li>• Any of the specified label data source view objects do not exist.</li> <li>• Any of the specified label data source view objects do not have primary keys.</li> <li>• When a label data source view object is initially defined, the database registers the primary keys for the view object. If the view object is later modified such that its primary keys no longer match the primary keys that were registered earlier, this validation fails.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct the specified label data source view object.</li> <li>• Correct the primary keys of the specified label data source view object.</li> <li>• Either correct the primary keys in the label data source view object to match the primary keys that were earlier registered in <code>FND_TS_DATA_SOURCE</code>, or correct the primary keys registered in that table to match the new view object definition.</li> </ul>
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Available Data Sources	Each data source view object specified for the tree structure must be accessible, and all its primary key attributes must be valid.	<ul style="list-style-type: none"> <li>• Any of the specified data source view objects do not exist.</li> <li>• When a data source view object is initially defined, the database automatically registers the primary keys for the view object if the <b>Use non-defined primary key columns</b> check box on the Data Source dialog box is not selected. If the check box is selected, the database registers the primary keys specified explicitly by the user on the Add Data Source dialog box. If the registered primary keys contain any duplicates, this validation fails.</li> <li>• The <b>Use non defined primary key columns</b> check box is selected in a data source, but the list of specified primary key columns does not match the primary keys defined in the corresponding data source view object.</li> <li>• Any common attribute that exists in both the data source view object and the tree node view object is not of the same data type in both view objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Correct the specified data source view object.</li> <li>• Correct the duplicate column in the registered primary keys.</li> <li>• Correct the primary keys of the specified data source view object.</li> <li>• Correct any mismatch in data types.</li> </ul>
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Column Flattened Table Name	On the Manage Tree Structures: Specify Performance Options page, a valid column flattened table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE_CF</code> or a custom table.	<ul style="list-style-type: none"> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE_CF</code> table.</li> </ul>	Correct the column flattened table definition.
Restrict by Date	On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each of its data source view objects must have effective start date and effective end date attributes. This validation does not take place when the check box is not selected.	Even when the check box is selected, one or more of its data source view objects does not contain effective start date and effective end date attributes.	If the date restriction is required for this tree structure, include the effective start date and effective end date attributes on all data sources. Otherwise, deselect the check box.
Tree Node Table Name	On the Manage Tree Structures: Specify Definition page, a valid tree node table must be specified for the tree structure. It can either be the standard row flattened table <code>FND_TREE_NODE</code> or a custom table.	<ul style="list-style-type: none"> <li>No table is specified in the <b>Tree Node Table</b> field.</li> <li>The specified table does not exist in the database.</li> <li>The specified table does not contain the same columns as the <code>FND_TREE_NODE</code> table.</li> </ul>	Correct the tree node table definition.
Allow Node Level Security	If the <b>Allow Node Level Security</b> option is set to No for the tree structure, the same option cannot be set to Yes on any of its data sources. This is a database setting that is not visible on the Manage Tree Structures page.	The option is set to No for the tree structure but one or more associated data sources have that option set to Yes.	Correct the option setting in the tree structure and their data sources.

## Specifying Data Sources for Tree Structures: Points to Consider

The data sources provide the items for establishing hierarchy in a tree structure. In the tree management infrastructure, these data sources are Oracle Application

Development Framework (ADF) business components view objects, which are defined by application development.

### Labeling Schemes

Selecting a labeling scheme determines how the tree nodes are labeled. You may select a labeling scheme to assign at the data source level, at the parent node level, or keep it open for customer assignment. You may also choose not to have any labeling scheme. However, if you decide to use any of the labeling schemes, you may need to select the following additional options, to restrict the list of values that appear under the selected tree node.

- **Allow Ragged Nodes:** To include nodes that have no child nodes, and are shorter than the remaining nodes in the entire hierarchy.
- **Allow Skip Level Nodes:** To include nodes that are at the same level but have parent nodes at different levels.

### Restriction of Tree Node Values

You can decide the depth of the tree structure by selecting an appropriate value from the list. Keeping the depth limit open renders an infinite list of values.

Using the following options, you can restrict the list of values that appear for selection under a specific tree node.

- **Date Range:** Specifies whether a selection of nodes should be restricted to the same date range as the tree version.
- **Allow Multiple Root Nodes:** Allows you to add multiple root nodes when creating a tree version.
- **Reference Data Set:** Specifies whether a selection of nodes should be restricted to the same set as the tree.

### Data Source Values and Parameters

Tree data sources have optional data source parameters with defined view criteria and associated bind variables. You can specify view criteria as a data source parameter when creating a tree structure, and edit the parameters when creating a tree. Multiple data sources can be associated with a tree structure and can have well-defined relationships among them.

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#### Note

Parameter values customized at the tree level override the default values specified at the tree-structure level.

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The data source parameters are applied to any tree version belonging to that data source, when performing node operations on the tree nodes. Data source parameters also provide an additional level of filtering for different tree structures. The tree structure definition supports three data source parameter types.

- **Bound Value:** Captures any fixed value, which is used as part of the view criteria condition.
- **Variable:** Captures and binds a dynamic value that is being used by the data source view object. This value is used by the WHERE condition of the data flow.
- **View Criteria:** Captures the view criteria name, which is applied to the data source view object.

You can also specify which of the data source parameters are mandatory while creating or editing the tree structure.

View objects from the ADF business components are used as data sources. To associate the view object with the tree structure, you can pick the code from ADF business component view objects and provide the fully qualified name of the view object, for example, oracle.apps.fnd.applcore.trees.model.view.FndLabelVO.

## Specifying Performance Options for a Tree Structure: Points to Consider

Tree structures are heavily loaded with data. As a tree management guideline, use the following settings to improve performance of data rendering and retrieval.

- Row Flattening
- Column Flattening
- Column Flattened Entity Objects
- ADF Business Component View Objects

### Row Flattening

Row flattening optimizes parent-child information for run-time performance by storing additional rows in a table for instantly finding all descendants of a parent without initiating a CONNECT BY query. Row flattening eliminates recursive queries, which allows operations to perform across an entire subtree more efficiently.

To store row flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_RF` table or they can register their own row flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a row-flattened table contains an additional row with Corporation directly being the parent of Region (Corporation-Region).

### Column Flattening

Column flattening optimizes parent-child information for run-time performance by storing an additional column in a table for all parents of a child.

To store column flattened data for the specific tree structure, users can either use the central `FND_TREE_NODE_CF` table or they can register their own column flattened table. For example, in a table, if Corporation is the parent of Sales Division (Corporation-Sales Division), and Sales Division is the parent of Region (Sales Division-Region), a flattened table in addition to these columns, contains three new columns: Region, Sales Division, and Corporation. Although positioned next to each other, the column Region functions at the lower level and Corporation at the higher level, retaining the data hierarchy.

### Column Flattened Entity Objects

In the absence of a column-flattened table, if you need to generate the business component view objects for your tree structure for the flattened table, use the tree management infrastructure to correctly provide the fully qualified name of the entity object for the column flattened table.

### ADF Business Component View Objects

View objects from the ADF business components can also be used as data sources, eliminating the need to create new types of data sources. This field is to store the fully qualified name for the business component view object generated by the tree management for business intelligence reporting and usage. The business component view object is a combination of the tree data source and column flattened entity. Using this option prevents data redundancy and promotes greater reuse of existing data, thereby improving the performance of the tree structure.

## Manage Tree Labels

### Tree Labels: Explained

Tree labels are tags that are stored on tree nodes. You can store labels in any table and register the label data source with the tree structure. When a labeling scheme is used for trees, the selected labels are stored in the tree label entity and each tree node contains a reference to a tree label in the labeling scheme.

The following table lists the three ways in which tree labels are assigned to the tree nodes.

Labeling Scheme	Description
Level	Labels that are automatically assigned based on the data source to which the tree node belongs. A level label points to a specific data source. For example, in a tree that reflects the organizational hierarchy of an enterprise, all division nodes appear on one level and all department nodes on another.
Group	Labels that you can arbitrarily assign to tree nodes.
Depth	Labels that are automatically assigned based on the depth of the tree node within the tree. No manual assignment is performed. <hr/> <b>Note</b> In an unbalanced hierarchy, a level may not be equal to depth.

## Manage Trees and Tree Versions

### Managing Trees and Tree Versions: Points to Consider

You can create and edit trees and tree versions depending upon the requirement. A tree can have one or more tree versions. Typically, when changes are made to an existing tree, a new version is created and published.

#### Creating and Editing Trees

Trees are created based on the structure defined in the tree structure. You can create trees, modify existing trees, and delete trees. If you want to copy an existing tree, you can duplicate it. However, only the tree is duplicated and not its versions.

Creating a tree involves specifying the tree definition and specifying the labels that are used on its nodes. If the selected tree structure has data sources and parameters defined for it, they appear on the page allowing you to edit the parameter values at the tree node level.

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#### Note

Parameter values customized at the tree level will override the default values specified at the tree-structure level.

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#### Creating and Editing Tree Versions

Tree versions are created at the time of creating trees. A tree must contain a version.

Editing an existing tree provides you the choice to update the existing version. You can also edit the existing version that lies nested under the tree in the search results.

When you edit a tree version bearing Active status, the status changes to Draft until the modifications are saved or cancelled.

### Tree Version Audit Results: Explained

Use the tree version audit results to verify the tree version's correctness and data integrity. The audit results include the following details:

- The name of the validator, which is a specific validation check
- The result of the validation, including a detailed message
- Corrective actions to take if there are any validation errors

## Running an Audit

An audit automatically runs whenever a tree version is set to active. You can also manually trigger an audit on the Manage Trees and Tree Versions page, using **Actions - Audit**. The Tree Version Audit Result table shows a list of validations that ran against the selected tree version.

### Validation Details

The following table lists the validators used in the audit process and describes what each validator checks for. It also lists possible causes for validation errors and suggests corrective actions.

Validator	Description (what is checked)	Possible Cause for Validation Failure	Suggested Corrective Action
Effective Date	The effective start and end dates of the tree version must be valid.	The effective end date is set to a value that is not greater than the effective start date.	Modify the effective start and end dates such that the effective start date is earlier than the effective end date.
Root Node	On the Manage Tree Structures: Specify Data Sources page, if the <b>Allow Multiple Root Nodes</b> check box for the <b>Restrict Tree Node List of Values Based on</b> option is not selected, and if the tree structure is not empty, the tree version must contain exactly one root node. This validation does not take place if the check box is selected.	Even if the check box is deselected, the tree version has multiple root nodes.	Modify the tree version such that there is exactly one root node.
Data Source Max Depth	For each data source in the tree structure, on the Data Source dialog box, if the data source is depth-limited, the data in the tree version must adhere to the specified depth limit. This validation does not apply to data sources for which the <b>Maximum Depth</b> field is set to <b>Unlimited</b> .	The tree version has data at a depth greater than the specified depth limit on one or more data sources.	Modify the tree version such that all nodes are at a depth that complies with the data source depth limit.
Duplicate Node	On the Data Source dialog box, if the <b>Allow Duplicates</b> check box is not selected, the tree version should not contain more than one node with the same primary key from the data source. If the check box is selected, duplicate nodes are permitted.	Even when the check box is deselected, the tree version contains duplicate nodes.	Remove any duplicate nodes from the tree version.

Available Node	All nodes in the tree version should be valid and available in the underlying data source.	<ul style="list-style-type: none"> <li>• A node in the tree version does not exist in the data source. Deleting data items from the data source without removing the corresponding nodes from the tree version can result in orphaned nodes in the tree version. For example, if you added node A into your tree version, and subsequently deleted node A from the data source without removing it from the tree version, the validation fails.</li> <li>• The tree version contains a tree reference node, which references another tree version that does not exist.</li> </ul>	Remove any orphaned nodes from the tree version. Update tree reference nodes so that they reference existing tree versions.
Node Relationship	All nodes must adhere to the relationships mandated by the data sources registered in the tree structure.	The tree structure has data sources arranged in a parent-child relationship, but the nodes in the tree do not adhere to the same parent-child relationship. For example, if the tree structure has a Project data source with a Task data source as its child, Task nodes should always be under Project nodes in the tree version. This validation fails if there are instances where a Project node is added as the child of a Task node.	Modify the tree version such that the nodes adhere to the same parent-child relationships as the data sources.

SetID Restricted Node	On the Manage Tree Structures: Specify Data sources page, if the <b>Set ID</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for each tree node, the underlying node in the data source must belong to the same reference data set as the tree itself. This restriction does not apply when the check box is not selected.	Even when the check box is selected, the tree version has nodes whose data source values belong to a different reference data set than the tree.	Modify the tree version such that all nodes in the tree have data sources with reference data set matching that of the tree.
Label Enabled Node	On the Manage Tree Structures: Specify Data Sources page, if a labeling scheme is specified for the tree structure by selecting a list item from the <b>Labeling Scheme</b> list box, all nodes should have labels. This restriction does not apply when you select <b>None</b> from the <b>Labeling Scheme</b> list box.	The tree structure has a labeling scheme but the tree version has nodes without labels.	Assign a label to any node that does not have a label.

Date Restricted Node	On the Manage Tree Structures: Specify Data Sources page, if the <b>Date Range</b> check box is selected to enable the <b>Restrict Tree Node List of Values Based on</b> option for a tree structure, each node in the underlying data source must have an effective date range same as the effective date range of the tree version. This restriction does not apply if the check box is not selected.	Even when the check box is selected, there are data source nodes that have a date range beyond the tree version's effective date range. For example, if the tree version is effective from Jan-01-2012 to Dec-31-2012, all nodes in the tree version must be effective from Jan-01-2012 to Dec-31-2012 at a minimum. It is acceptable for the nodes to be effective for a date range that extends partly beyond the tree version's effective date range (for example, the node data source value is effective from Dec-01-2011 to Mar-31-2013). It is not acceptable if the nodes are effective for none or only a part of the tree version's effective date range (for example, the node data source value are effective only from Jan-01-2012 to June-30-2012).	Ensure that all nodes in the tree version have effective date range for the effective date range for the tree version.
Multiple Active Tree Version	On the Manage Tree Structures: Specify Definition page, if the <b>Allow Multiple Active Tree Versions</b> check box is not selected for the tree structure, there should not be more than one active tree version under a tree at any time. This restriction does not apply if the check box is selected.	Even when the check box is not selected, there is more than one active tree version in the tree for the same date range.	Set no more than one tree version to Active within the same date range and set the others to inactive or draft status.
Range Based Node	On the Data Source dialog box, if the <b>Allow Range Children</b> check box is not selected, range-based nodes are not permitted from that data source. This restriction does not apply if the check box is selected.	Even when the check box is not selected, there are range-based nodes from a data source.	Ensure that any range nodes in your tree version are from a data source that allows range children.

Terminal Node	On the Data Source dialog box, if the <b>Allow Use as Leaves</b> check box is not selected, values from that data source cannot be added as leaves (terminal nodes) to the tree version. This restriction does not apply if the check box is selected.	Even when the check box is not selected, values from a data source are added as leaf nodes (terminal nodes).	Modify the tree version such that all terminal nodes are from data sources for which this check box is selected.
Usage Limit	On the Data Source dialog box, if the <b>Use All Values</b> option is selected to set the <b>Usage Limit</b> for the data source, every value in the data source must appear as a node in the tree. This restriction does not apply if <b>None</b> option is selected.	Even if the <b>Use All Values</b> option is selected, there are values in the data source that are not in the tree version.	For each data source value that is not yet available, add nodes to the tree version.

## Trees and Data Sources: How They Work Together

Data sources form the foundation for tree management in Oracle Fusion Applications. Tree structures, trees, and tree versions establish direct and real-time connectivity with the data sources. Changes to the data sources immediately reflect on the **Manage Trees and Tree Versions** page and wherever the trees are being used.

### Metadata

Tree structures contain the metadata of the actual data that is used in Oracle Fusion Applications. Tree structures contain the core business logic that is manifested in trees and tree versions.

### Data Storage

Trees and tree versions are built upon the tree structures. They employ the business rules defined in the tree structures and allow an application to select and enable a subset of trees to fulfill a specific purpose in that application.

### Access Control

Source data is mapped to tree nodes at different levels in the database. Therefore, changes you make to the tree nodes affect the source data. Access control set on trees prevents unwanted data modifications in the database. Access control can be applied to the tree nodes or anywhere in the tree hierarchy.

## Adding Tree Nodes: Points to Consider

Tree nodes are points of data convergence that serve as the building blocks of a tree structure. Technically, the node may be stored either in a product-specific table or in an entity that has been established by tree management as the default

storage mechanism. However, since all data in Oracle Fusion Applications usually have a storage home, only user-created data needs to be stored in an entity.

Nodes are attached to tree versions. Whenever you create or edit a tree version, you need to specify its tree node.

## Managing Tree Nodes

You can create, modify, or delete tree nodes on the **Tree Version: Specify Nodes** page. To add a tree node, ensure that the tree structure with which the tree version is associated is mapped to a valid data source. You can also duplicate a tree node if the multiple root node feature is enabled.

## Node Levels

In most trees, all nodes at the same level represent the same kind of information. For example, in a tree that reflects the organizational hierarchy, all division nodes appear on one level and all department nodes on another. Similarly, in a tree that organizes a user's product catalog, the nodes representing individual products might appear on one level and the nodes representing product lines on the next higher level.

When levels are not used, the nodes in the tree have no real hierarchy or reporting structure but do form a logical summarization structure. Strictly enforced levels mean that the named levels describe each node's position in the tree. This is natural for most hierarchies. Loosely enforced levels mean that the nodes at the same visual level of indentation do not all represent the same kind of information, or nodes representing the same kind of information appear at multiple levels. With loosely enforced levels, users assign a level to each node individually. The level is not tied to a particular visual position.

## Node Types

A tree node has the following node types.

- **Single:** Indicates that the node is a value by itself.
- **Range:** Indicates that the node represents a range of values and possibly could have many children. For example, a tree node representing account numbers 10000 to 99999.
- **Referenced Tree:** Indicates that the tree node is actually another version for the tree based on the same tree structure, which is not physically stored in the same tree. For example, a geographic hierarchy for the United States can be referenced in a World geographic hierarchy.

## Define Profile Options

### Profile Options: Explained

Profile options manage configuration data centrally and influence the behavior of applications. Profile options serve as permanent user preferences and

application configuration parameters. You configure profile options with settings for specific contexts or groups of users. Users customize how their user interfaces look and behave by changing the values of available profile options.

Profile options store the following kinds of information.

Type of Information	Profile Option Example
User preferences	Settings to provide access to social networking features
Installation information	Setting to identify the location of a portal
Configuration choices	Settings to change user interface skins and behaviors
Processing options	Settings to affect how much information to log either for an entire site or a specific user

You can add and configure new profile options in addition to configuring predefined profile options that are implemented as updateable.

### Profile Option Definition and Configuration

Application developers add new profile options and configure ones that are not to be updated by other users. Application administrators and implementation consultants configure profile options with profile option values that are implemented as updateable.

Profile option definitions consist of the following.

- Profile option name
- Application and module in the application taxonomy
- Profile option values
- Profile options categories
- Profile option levels
- Profile option level hierarchy

Profile options can appear on any user interface page without indication that a profile option is what is being set.

### Profile Option Values

Some profile options have predefined profile option values.

The Manage Profile Option Values task flow allows an administrator to set updateable profile option values at the available levels, including the user level. You can access the Manage Profile Option Values task starting in the Setup and Maintenance Overview page and searching for profile option tasks.

You can set profile option values at different levels: site, product, and user. The following table provides examples.

Profile Option Level	Value of the Profile Option Level	Profile Option Value	Effect
User	Manager1	UK pound sterling	Access to site and all products shows UK pounds sterling in effect
User	Manager2	US dollar	Access to site and all products shows US dollars in effect
Product	Financials for EMEA	Euro	Unless superseded by a user level value, Euros in effect for Financials for EMEA applications
Site	Site	UK pound sterling	UK pounds sterling in effect for all other users and products

Context such as user session or accessed product determines which profile option value is associated with the profile option name. In the example, if manager1 does not set a profile option value for this profile option, access to Financials for EMEA shows currency in Euros; and access to other products shows currency in UK pounds sterling.

### Profile Option Categories

Categories group profile options based on their functional area. Profile option categories facilitate searching and defining data security.

For example, in Oracle Fusion Receivables, the Transactions profile option category groups profile options related to setting how Receivables transactions are to be processed, such as Require Adjustment Reason.

A profile option can be in more than one category.

### Profile Option Hierarchies and Levels

Application developers specify at which hierarchy level a profile option is enabled. The predefined profile option hierarchy levels are site, product, and user.

The hierarchy levels specified in the profile option definition determine the context in which a profile option value may be set. If the profile option value at a particular level is updatable, an administrator can update the profile option value for that context.

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#### Note

Profile options should only be enabled for context levels that are appropriate for that profile option. For example, a profile option indicating a global configuration setting should not be enabled at the user level, if users cannot choose a different value for that setting.

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For security, one level in the hierarchy is designated as a user level. A profile option may be enabled at any or all hierarchy levels. When enabled at all levels,

the predefined ordering of profile option hierarchy levels gives precedence to the values that are set at the user level over values set at the product and site levels, and precedence to values set at the product level to values set at the site level. If there is no value for the current user, then the product value applies. If there is no value for the user or product, then the site value applies.

The table shows the predefined profile option hierarchy and ordering.

Hierarchy Level	Priority When Multiple Levels Set	Effect on Applications	Example
Site	Lowest	Affect all applications for a given implementation	Currency for the site is set to Euros.
Product	Supersedes Site	Affect all applications of a product family such as Financials	Currency for the Financials products set to UK pound sterling.
User	Highest, supersedes Product	Affect only the experience of the current user	Currency for the user of Financials applications set to US dollars.

You can configure updatable values for profile options at one or more levels depending on which levels are enabled in the profile option definition. When a profile is set at more than one level, higher levels of specificity override lower levels of specificity.

In the example, if the currency setting for the site is UK pounds sterling, but the Financials division works in the Netherlands using the Euro, a manager in the US can override that product level setting at the user level to use US dollars when accessing Financials applications.

In another example, if a profile option called Printer is set only at the site and product levels. When a user logs on, the Printer profile option assumes the value set at the product level, since it is the highest level setting for the profile.

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#### Tip

Set site-level profile option values before specifying values at any other level. The profile option values specified at the site-level work as defaults until profile option values are specified at the other levels.

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## Planning Profile Options: Points to Consider

Plan profile options before defining and configuring them.

The following aspects assist you in better planning how to manage profile options.

- Profile option tasks
- Before creating a profile option
- Profile options data model

## Profile Option Tasks

Users may be able to set their own profile options, depending on settings in the profile option definition. However, not all profile options are visible to end users, and some profile options, while visible, may not be updated by end users.

The following table lists tasks and considerations relevant to planning profile options.

Tasks	Role	Considerations
Planning, creating, and editing a new profile option	Applications developer	Since profile options are for permanent settings, do not use profile options to cache temporary session attributes.  Add capacity for user preferences and system configuration. Customize profile options with values, value behaviors, validation, category values, and security. Define the levels at which the profile option is enabled.
Configure values in an existing profile option	Applications developer, application administrator, and implementation consultant	Manage the values for existing profile options.
Create and edit profile option categories	Applications developer, application administrator, and implementation consultant	Manage categories for organizing existing profile options.

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### Note

Since a profile option enables a behavior in an application user interface or across applications, a value change made by an end user is reflected in the UI page for managing profile option values.

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### Before Creating a Profile Option

Profile options are best defined for managing configuration data centrally and influencing the behavior of applications.

If the purpose of a profile option setting is specific to a piece of data (typically setup data), it is best implemented as an attribute of that data.

Do not use profile options for behavior that is not configurable.

Profile options exist independent of role.

Do not use profile options to implement function security. For example, an application should not check for a profile option value set to yes to provide access to a page. Do not use profile options to implement data security, such as a profile option value that must be set to a specific value to provide view access to an entity.

Do not use profile options to capture a dynamic system states, such as data stored in a temporary table. Use Global Variables for temporary states instead.

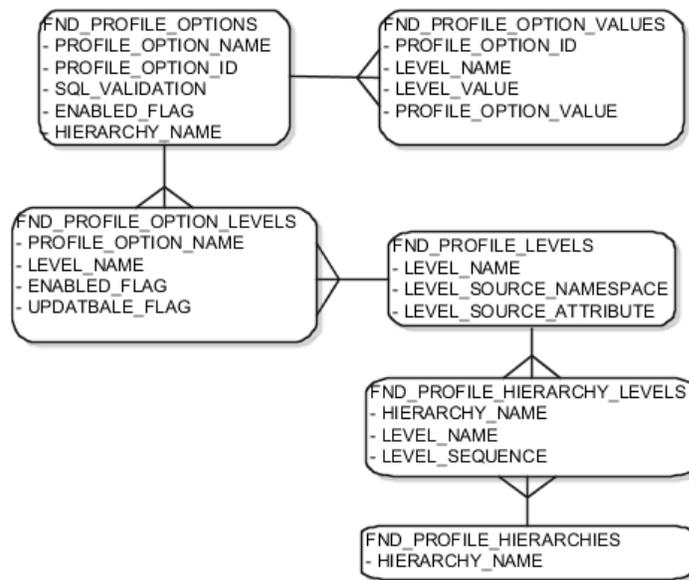
Evaluate if there is a genuine need before creating a profile option. Do not force users to make a decision about an aspect of their application use that is of no concern.

Evaluating need includes looking for duplicate or similar profile options, even in other products, before creating a new one. For example, you do not need multiple profile options to choose a preferred currency.

### Profile Options Data Model

The profile option data model illustrates the relationships among profile option elements.

The figure shows the data model of profile option entities.



For more information about planning profile options, see the Oracle Fusion Applications Developer's Guide.

## Managing Profile Options: Points to Consider

A profile option definition consists of a name for the profile option and valid values. It is defined within a module of the application taxonomy. Application developers manage profile options to create new profile options or modify existing profile option definitions, which includes specifying the levels at which a profile option is enabled and defining values. Implementation consultants and application administrators configure existing profile options by managing the profile option's updatable values, and creating categories that group profile options.

### Configuring a Profile Option

A profile option definition includes information about the owning application and module in the application taxonomy. A start or end date, or both may limit

when a profile option is active. The profile option definition may include an SQL validation statement that determines which values are valid, and the hierarchy levels at which the profile option is enabled and updatable.

To be visible to users, a profile option must be user enabled. You can also allow user updates of the profile option, which means users can make changes to the validation and the profile option level information.

Profile option levels specify at which context level profile values may be enabled or updated. .

Profile options should only be enabled for context levels that are appropriate for that profile option. For example, a profile option indicating a global configuration setting should not be enabled at the user level, if users cannot choose a different value for that setting.

### SQL Validation

The SQL validation of the profile option definition determines what valid profile option values are available. In the absence of validation, any value is valid.

For example, SQL validation provides a means of defining a list of values for the valid values of the profile option. The SQL validation can use lookups to provide the valid values for profile options, such as the lookup codes of the YES\_NO lookup type.

With a profile option called DEFAULT\_LANGUAGE, you can configure the following validation.

```
SELECT DESCRIPTION Language, NLS_LANGUAGE
FROM FND_LANGUAGES_VL
WHERE INSTALLED_FLAG IN ('B','I')
ORDER BY DESCRIPTION
```

This results in the following list of values based on data in FND\_LANUGUAGE\_VL.

Display Value	Hidden Value
American English	US
French	F
Spanish	E

Hidden values must be varchar2(2000).

Profile options generally provide configuration values within a particular context. Though you can create a profile option to be global, think of global values as default values to avoid storing inappropriate configuration information as profile option values. Create global profile options that have corresponding contextual levels.

## Managing Profile Option Categories: Points to Consider

Use profile option categories to group profile options.

## Organizing Profile Options in Categories

As a guideline, group profile options in a single category if the profile options affect the same feature, or if an administrator would likely want to see the profile options in the results of a single search.

Application developers are responsible for the initial groupings and then administrators can make changes based on their specific needs. Administrators can categorize profile options and then easily search on profile options by category.

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### Tip

Define profile option categories first and assign new profile options to existing categories rather than defining profile options first and then defining categories to categorize them.

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## Adding New Profile Option Categories

You can add new categories or add profiles to an existing category.

You can create a profile option category by duplicating an existing category and editing it for a new grouping of profile options. You can add multiple profile options to a category. A profile option can exist in multiple categories.

## Profile Option Order in a Category

Specify a profile option sequence to determine the order of profile options when queried by profile option category.

# Viewing and Editing Profile Option Values: Points to Consider

A profile option value consists of the value and the context or level where the value is set. You specify the context with a pairing of the profile option value's level and level value, such as the product level and the level value GL for Oracle Fusion General Ledger. Adding or modifying profile option values can include deciding which valid values are enabled or updatable at which level.

The SQL validation of the profile option definition determines what valid profile option values are available. In the absence of validation, any value is valid.

## Profile Option Levels and User Session Context

Site level profile option values affect the way all applications run for a given implementation. Product level profile option values affect the way applications owned by a particular product code behave. For example, a product may use profile options set at the product level to determine how regions provided by a common module such as those available from Oracle Fusion Trading Community Model or Customer Relationship Management (CRM) display in a particular work area or dashboard. User level profile option values affect the way applications run for a specific application user.

Whichever profile option value is most specific to a user session, that is the value at which the profile option is set for the user session.

For example, the predefined FND\_LANGUAGE profile option sets the default language. In addition to a site level value, you can define a value for various product or user levels.

Level Name	Level Value	Profile Option Value
Site	InFusion	American English
Product	Customer Center	French
Product	CRM Application Composer	American English
User	Application Administrator	American English
User	Hima	Hindi

Values at the site level take effect for any user unless overridden by a different value set at the more specific levels of product and user. Product level profile option values affect the way applications owned by a particular product code behave. In addition to user level profile option values in applications, selections may be available in the user preferences workspace.

The following table demonstrates the FND\_LANGUAGE profile option settings that would apply to specific users, based on the example above. For example, the user Hima is using the CRM Application Composer product, in the InFusion site. The example above shows that this profile option is set to Hindi at the user level for Hima. Because user is the highest applicable level for Hima, the applicable profile option value is Hindi for Hima.

Site	Product	User	Highest Available Level	Active Profile Option Value
InFusion	CRM Application Composer	Hima	User	Hindi
Acme	Payables	Application Administrator	User	American English
InFusion	Customer Center	Guillaume	Product	French
InFusion	Payables	Implementation Consultant	Site	American English
Acme	Payables	Implementation Consultant	none	no value

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**Note**

More than one site level value is relevant in an enterprise with multiple tenants using a single instance of Oracle Fusion Applications.

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**Effect of Changes to Profile Option Values**

Any change you make to a user level profile option has an immediate effect on the way applications run for that session. When you sign in again, changes made to your user level profile options in a previous session are still in effect. When

you change profile option value at the product level and no user level values are set, you see the update immediately, but other users may not see the changed value until signing out and back in. When you change a profile option value and the new value affects other users, the change takes effect only when users sign in the next time.

Changes to site level profile options take effect for any user session that is started after the setting has been changed. Changes to site or user level profile options do not affect any user sessions that are already in progress when the change is made.

Changes to site or user level profile options take effect for any C or PL/SQL processes, such as scheduled jobs, that are launched after the setting has been changed. Profile option changes do not affect C or PL/SQL processes that are already running.

## Define Flexfields

### Flexfields: Overview

Flexfields are a mechanism for configuring and extending applications to meet enterprise-specific needs. Using flexfields, you can extend application objects to capture data that would not otherwise be tracked by the application, or configure intelligent key codes comprised of meaningful parts according to your business practices. Flexfields encapsulate all of the pieces of information related to a specific purpose, such as a key identifying a particular purchase, or the components of a student's contact information, or the features of a product in inventory.

A flexfield is an extensible data field consisting of subfields. Each subfield is a flexfield segment. You configure segments to capture enterprise-specific information. Each segment captures a single atomic value, has a name, and maps to a pre-reserved column in the applications database.

Flexfields allow enterprise requirements to be met without changing the data model. Different data can be captured on the same database table.

Application developers create a flexfield and register it so that it is available for configuration. Administrators and implementation consultants setup or configure segments and other properties of the available flexfields. End users see flexfield segments as attributes of information displayed in the application user interface. They enter a value for the attribute. The value may be selected from a list of valid values or entered as free-form text that complies with formatting rules.

Manage flexfields using tasks you access by starting in the Setup and Maintenance Overview page.

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#### Tip

Use the **Business Object** parameter to search Application Key Flexfields, Application Descriptive Flexfields, and Application Extensible Flexfields to find all tasks related to flexfields. To manage any flexfield across all Oracle Fusion Applications products, search for the Define Flexfields task list and access the

Manage Descriptive Flexfields, Manage Extensible Flexfields, and Manage Key Flexfields tasks.

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## Types of Flexfields

The following three types of flexfields are available in Oracle Fusion Applications and provide a means to customize applications features without programming.

- Key
- Descriptive
- Extensible

For example, in Oracle Fusion Financials, key flexfields represent objects such as accounting codes and asset categories. Generally, correct operations of a product depend on key flexfield setup. In Oracle Fusion Payables, a descriptive flexfield expands a customizable area of an invoices page by providing subfields for collecting invoice details. You can implement these subfields, which are descriptive flexfield segments, as context sensitive so they appear only when needed. Extensible flexfields are similar to descriptive flexfields, but provide additional advanced features. Generally setup of descriptive and extensible flexfields is optional because their segments capture additional information that is stored attributes on an entity

## Segments

All flexfields consist of segments. Segments represent attributes of information. They can appear globally wherever the flexfield is implemented, or based on a structure or context.

You define the appearance and meaning of individual segments when configuring a flexfield.

A key flexfield segment commonly describes a characteristic of the entity identified by the flexfield, such as a part number structured to include information about the type, color, and size of an item. A descriptive flexfield segment represents an attribute of information that describes a characteristic of the entity identified on the application page, such as details about a device containing components, some of which are globally present on the page while others are contextually dependent on the category of the device.

## Value Sets

A value set is a predefined, named group of values that can be used to validate the content of a flexfield segment.

You configure a flexfield segment with a value set that establishes the valid values that an end user can enter for the segment. You define the values in a value set, including such characteristics as the length and format of the values. You can specify formatting rules, or specify values from an application table or predefined list. Multiple segments within a flexfield, or multiple flexfields, can share a single value set.

## Structure and Context

Key flexfields have structure. Descriptive flexfields and extensible flexfields have context.

Each key flexfield structure is a specific configuration of segments. Adding or removing segments, or rearranging their order, produces a different structure. The database columns on which segments in different structures are based can be reused in as many structures as desired.

Descriptive flexfield segments can be context-sensitive, which means available to an application based on a context rather than globally available wherever the flexfield appears. (which means available to an application based on a context value rather than globally available wherever the flexfield appears. A descriptive flexfield context is a set of context-sensitive segments that store information related to the same context value. You define contexts as part of configuring a descriptive flexfield. End users see global segments, as well as any context-sensitive segments that apply to the selected context value.

Extensible flexfield segments are made available to an application based upon a category value. An extensible flexfield context serves as a container for related segments, used to organize the various segments that are applicable to a category value. You define contexts with context-sensitive segments and associate them to categories as part of configuring an extensible flexfield. End users see the segments displayed in subregions, one for each context associated to the selected category value.

In descriptive flexfields and extensible flexfields, the database columns on which context-sensitive segments are based can be reused in as many contexts as desired.

## Deployment

A flexfield must be deployed to display its current definition in a runtime application user interface. For example, if the deployment status is Edited, the flexfield segments may appear in the UI based on the flexfield definition at the time of last deployment, rather than the current definition.

You can deploy a flexfield as a sandbox for testing the configuration before deploying it to the mainline for all users.

## Runtime Appearance

In an application user interface, descriptive flexfield segments appear as label and field pairs or as a table of fields where the column headers correspond to the labels. The fields represent the flexfield segments and accept entered input or a selection from a list of choices that correspond to the segment's assigned value set. Extensible flexfield segments appear grouped within labeled regions, where each grouping is a context and the region labels are the context names.

Use the **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area to identify the location of the descriptive and key flexfields on the runtime page. Flexfields in highlight mode display an information icon to access details about the flexfield, and an edit icon to manage the flexfield.

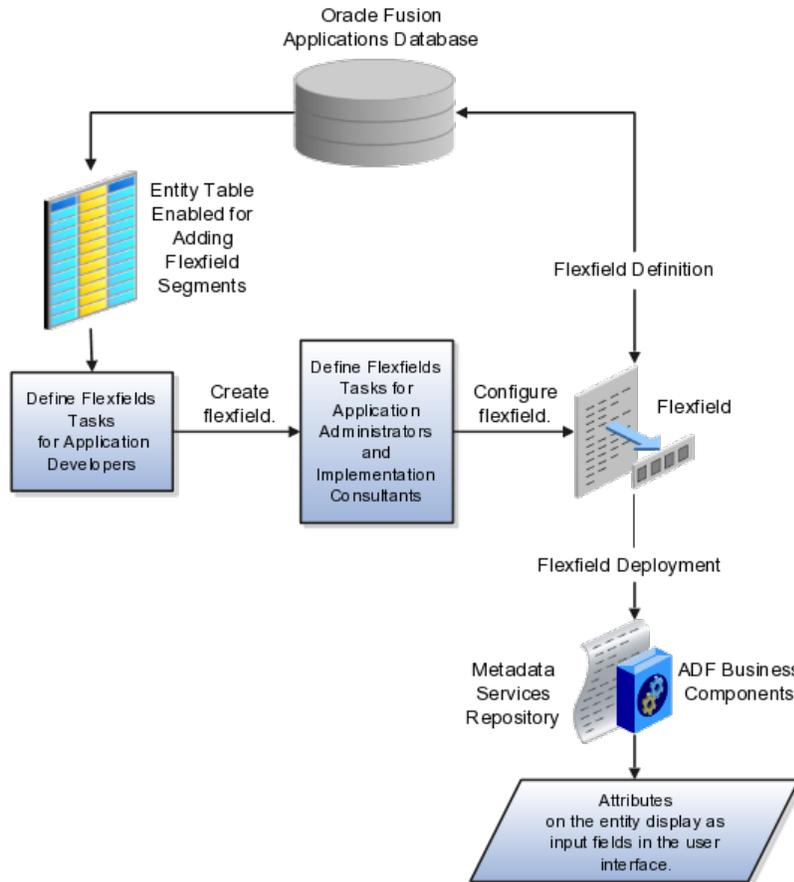
All segments of a single flexfield are grouped together by default. The layout and positions of the flexfield segments depend on where the application developer places the flexfield on the page. Flexfields may also be presented in a separate section of the page, in a table, or on their own page or subwindow.

You can use Oracle Composer to edit the layout, position, or other display features of the flexfield segments.

# Flexfields and Oracle Fusion Application Architecture: How They Work Together

Administrators configure flexfield segments to capture data that represents the values of attributes. Flexfield segments represent attributes of entities (business objects). Most business objects are enabled for descriptive flexfields. Some business objects are enabled for extensible flexfields.

The figure shows the layers of a flexfield: the business entity table and metadata in the database, business components that are Application Development Framework (ADF) objects or ADFbc objects derived from the metadata and stored in the Metadata Services Repository (MDS), and the user interface where the input fields defined by the flexfield segments are rendered. The flexfield definition consists of all the metadata defined during configuration and stored in the database.



Application developers create a flexfield and register it so that it is available for configuration. Administrators and implementation consultants configure segments and other properties of the available flexfields. This information is stored as additional flexfield metadata in the database. Deploying the flexfield generates ADF business components based on the flexfield metadata in the database.

## Integration

A flexfield affects the Web Services Description Language (WSDL) schemas exposed by ADF services and used by SOA composites. The Web services that expose base entity data also expose flexfield segment data.

Attributes incorporate into SOA infrastructure (BPEL, Rules) and integrate with business intelligence (Oracle Business Intelligence, Extended Spread Sheet Database (ESSbase)).

Flexfield configurations are preserved across Oracle Fusion Applications updates.

## Deployment

The metadata for the flexfield is stored in the application database as soon as you save your configuration changes. Deploying the flexfield generates the ADF business components so that the runtime user interface reflects the latest definition of the flexfield in the metadata.

## Importing and Exporting

You can export and import flexfields with a deployment status of Deployed or Deployed to Sandbox across instances of Oracle Fusion Applications using the Setup and Maintenance Overview page. Ensure a flexfield is eligible for migration (by verifying that it has successfully deployed) prior to attempting the migration.

## Runtime

For a flexfield to reflect the latest flexfield definition at runtime it must be deployed. The user interface accesses a business object and the deployed flexfield definition indicates which business object attributes the flexfield captures values for. If you add display customizations for a flexfield using Oracle Composer, these are customizations on the page so that the same flexfield segments can appear differently on various different pages.

Values entered for segments are validated using value sets.

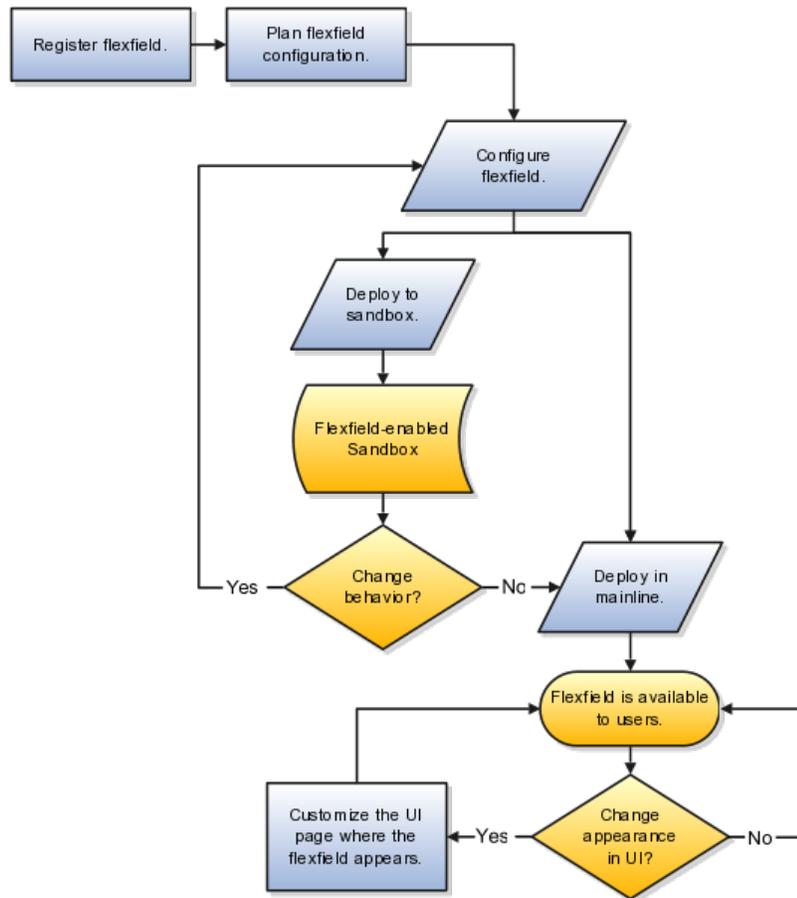
## Flexfield Management

### Managing Flexfields: Points to Consider

Managing flexfields involves, registering, planning, and configuring flexfields.

You plan and configure the registered flexfields provided in your applications by applications developers. How you configure flexfield segments determines how the flexfield segments appear to end users. Optionally, you can customize the UI page to change how the flexfield segments appear to end users on that page.

The figure shows the processes involved in making flexfields available to end users. The tasks in the Define Flexfields activity allow administrators to configure and deploy flexfields. If you deploy a flexfield to a sandbox and decide not to make further changes, you select the flexfield in the Manage Flexfields tasks of the Define Flexfields activity and deploy the flexfield in the mainline so it is available to users.



## Registering Flexfields

Application development registers flexfields so they are available to administrators and implementation consultants for configuration.

Application development creates the capacity of database tables to support flexfields so an enterprise can capture specific information about an entity. Many flexfields are predefined in Oracle Fusion Applications.

A flexfield must be registered before it can be configured.

For more information on registering flexfields, see Oracle Fusion Applications: Developer's Guide.

## Planning Flexfields

All flexfields consist of segments which represent attributes of an entity. The values an end user inputs for an attribute are stored in a column of the entity table. Application development enables columns of entity tables for use in flexfields during flexfield registration.

A flexfield must be registered before it can be configured. Before configuring new flexfield segments for your enterprise, be sure to plan their implementation carefully.

For more information on planning flexfield configuration, see Oracle Fusion Applications Extensibility Guide.

## Configuring Flexfields

Administrators or implementors configure flexfields so they meet the needs of the enterprise. Some flexfields require configuration to make an application operate correctly.

Configuring a flexfield includes the following.

- Defining value sets against which the values entered by end users are validated
- Defining the structure or context of the segments in the flexfield
- Specifying the prompt, length and data type of each flexfield segment
- Specifying valid values for each segment, and the meaning of each value within the application

---

### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

---

Some descriptive flexfields provide parameters that are attributes of the same or related entity objects. You use parameters to set the initial value or derivation value of an attribute from external reference data, such as a column value or a session variable, rather than from user input.

---

### Note

Adding segments to represent additional attributes is considered a custom task. For more information, see the Oracle Fusion Applications Extensibility Guide.

---

For more information on adding columns to a table, see the Oracle Fusion Applications Developer's Guide.

For more information on configuring flexfields for custom attributes, see also the Oracle Fusion Applications Extensibility Guide.

## Enabling a Flexfield Segment for Business Intelligence

You can enable key flexfield segment instances and descriptive flexfield segments for business intelligence if the flexfield is registered in the database as an Oracle Business Intelligence-enabled flexfield. For more information on enabling segments for business intelligence, see points to consider when enabling key and descriptive flexfield segments for business intelligence.

## Deploying Flexfields

After you configure or change a flexfield, you must deploy it to make the latest definition available to end users.

You deploy a flexfield in the mainline for general use in a test or production environment, or you can deploy a flexfield as a flexfield-enabled sandbox to confirm that it is correctly configured before deploying it to the mainline.

Deploying a flexfield results in a deployment status. Once deployed, the deployment status indicates the state of the currently configured flexfield relative to the last deployed definition

### **Optionally Changing How Flexfield Segments Appear in a User Interface Page**

The flexfield attributes you define integrate with the user interface pages where users access the attributes' business object. Application development determines the UI pages where business objects appear and the display patterns used by default to render flexfield segments.

You can customize the appearance of the flexfield segments in the UI page using Oracle Composer once the flexfield is deployed to the mainline.

For more information on customizing flexfield appearance with Oracle Composer, see guidance on customizing existing pages in Oracle Fusion Applications Extensibility Guide.

For more information on planning flexfields or customizing them beyond the configuration possible in the Define Flexfields tasks, see Oracle Fusion Applications Extensibility Guide.

For more information on creating flexfields and adding them to a UI page, see Oracle Fusion Applications Developer's Guide.

### **Identifying Flexfields on a Runtime Page**

The **Highlight Flexfields** command in the Administration menu of the Setup and Maintenance work area identifies the location of descriptive and key flexfields on the runtime page by displaying an information icon for accessing details about each flexfield.

Even if a flexfield has not yet been deployed and does not appear on the runtime page in normal view, it appears in the Highlight Flexfield view for that page. **Highlight Flexfields** accesses the current flexfield metadata definition.

Use the highlighted flexfield's edit icon to manage the descriptive or key flexfield directly. Alternatively, note a highlighted flexfield's name to search for it in the tasks for managing flexfields.

## **Flexfield Segment Properties: Explained**

Independent of the value set assigned to a segment, segments may have properties such as validation.

### **Range Validation of Segments**

Range validation enables you to enforce an arithmetic inequality between two segments of a flexfield. For example, a product must be ordered before it can be shipped, so the order date must be on or before the ship date, and consequently the order date segment value must be less than or equal to the ship date segment value. You can use range validation to ensure this relationship.

The conditions for range validation are as follows.

- Segments must be configured for range validation in pairs, one with the low value and one with the high value.
- Both segments must be the same data type.
- Both segments must be part of the same structure in a key flexfield or part of the same context in a descriptive flexfield or extensible flexfield.
- The low value segment must have a lower sequence number than the high value segment.
- Non-range validated segments can exist between a range validated pair, but range validated pairs cannot overlap or be nested.

You can configure as many range validated pairs as you want within the same flexfield. Your application automatically detects and applies range validation to the segment pairs that you define, in sequence order. It must encounter a low value segment first, and the next range validated segment it encounters must be a high value segment. These two segments are assumed to be a matching pair. The low value and the high value can be equal.

## Code Naming Conventions

When entering codes such as segment code, enter a code consisting of the characters A-Z, a-z, 0-9, with a non-numeric leading character.

The code is used in the flexfield's element in the XML schema for web services. You can maximize the readability of the schema by naming codes with a leading alphabetic character followed by alphanumeric characters. The use of spaces, underscores, multi-byte characters, and leading numeric characters, which are all encoded in XML schemas, make the codes in the schema element difficult to read.

This applies to context code in descriptive and extensible flexfields, and to structure instance code in key flexfields.

## Flexfields and Value Sets: How They Work Together

Value sets are specific to your enterprise. When gathering information using flexfields, your enterprise's value sets validate the values your users enter based on how you defined the value set.

You can assign a value set to any number of flexfield segments in the same or different flexfields. Value set usage information indicates which flexfields use the value set.

### Defining and Assigning Value Sets

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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#### Caution

Be sure changes to a shared value set are compatible with all flexfield segments using the value set.

---

## Shared Value Sets

When you change a value in a shared value set, the change affects the value set for all flexfields that use that value set. The advantage of a shared values set is that a single change propagates to all usages. The drawback is that the change shared across usages may not be appropriate in every case.

## Deployment

When you deploy a flexfield, the value sets assigned to the segments of the flexfield provide end users with the valid values for the attributes represented by the segments.

## Defaulting and Deriving Segment Values: Explained

To populate a flexfield segment with a default value when a row is created, specify a default type of constant or parameter and a default value.

To synchronize a segment's value with another field's value whenever it changes, specify the derivation value to be the flexfield parameter from which to derive the attribute's value. Whenever the parameter value changes, the attribute's value is changed to match. If you derive an attribute from a parameter, consider making the attribute read-only, as values entered by users are lost whenever the parameter value changes.

When defaulting or deriving a default value from a parameter, only those attributes designated by development as parameters are available to be chosen.

Different combinations of making the segments read only or editable in combination with the default or derivation value or both, have different effects.

Initial runtime behavior corresponds to the row for the attribute value being created in the entity table. If the default value is read only, it cannot subsequently be changed through the user interface. If the default value is not read only, users can modify it. However, if the segment value is a derived value, a user-modified segment value is overwritten when the derivation value changes.

Default Type	Default value specified?	Derivation value specified?	Initial runtime behavior	Runtime behavior after parameter changes
None	No	Yes	No initial segment value	Changed parameter derivation value updates segment value
Constant	Yes	No	Default segment value	N/A
Constant	Yes	Yes	Default segment value	Changed parameter derivation value updates segment value
Parameter	Yes	No	Default segment value is the parameter's default value	N/A

Parameter	Yes	Yes, and same as default value	Default segment value is parameter's default and derivation value	Changed parameter derivation value updates segment value
Parameter	Yes	Yes, and different from default value	Default segment value is parameter's default value	Changed parameter default value does not update segment value. Only the changed derivation value updates the segment value.

## Flexfield Usages: Explained

Usage affects various aspects of flexfields. The usage of the flexfield is set when the flexfield is registered and specifies the application and table with which the flexfield is associated.

Entity usage indicates the table containing the segments of a flexfield.

A flexfield can have multiple usages. The first table registered for a flexfield is the master usage. Segments are based on the master usage, and other usages of the same table for the same flexfield use the same segment setup, though the column names optionally may have a differentiating prefix.

### Extensible Flexfields

You can configure different behavior for extensible flexfield contexts at the usage level. The usage of an extensible flexfield context determines in which scenarios or user interfaces the segments of a context appear to end users. For example, if a Supplier page displays an extensible flexfield's supplier usage and a buyer page displays that same extensible flexfield's buyer usage, a context that is associated to the supplier usage but not the buyer usage displays only on the supplier page and not the buyer page.

### Value Sets

The usage of value sets specifies the segments where the value set is assigned.

## Flexfield Deployment

### Flexfield Deployment: Explained

To use a flexfield at runtime, the flexfield must have been deployed at least once. Deployment generates or refreshes the Application Development Framework (ADF) business component objects that render the flexfield in a user interface. Flexfields are deployed for the first time during the application provisioning process.

After you configure or change a flexfield, you must deploy it to make the latest definition available to end users. You can deploy a flexfield to a sandbox for testing or to the mainline for use.

### Deployment Status

Every flexfield has a deployment status.

A flexfield can have the following deployment statuses.

Deployment Status	Meaning
Edited	The flexfield metadata definition has not been deployed yet. Updates of the metadata definition are not applied in the runtime environment yet.
Patched	The flexfield metadata definition has been modified through a patch or through a data migration action, but the flexfield has not yet been deployed so the updated definition is not reflected in the runtime environment.
Deployed to Sandbox	The current metadata for the flexfield is deployed in ADF artifacts and available as a flexfield-enabled sandbox. The status of the sandbox is managed by the Manage Sandboxes task available to the Administrator menu of the Setup and Maintenance work area.
Deployed	The current metadata for the flexfield is deployed in ADF artifacts and available to end users. There have not been any changes to the flexfield since it was last deployed in the mainline.
Error	The deployment attempt in the mainline failed.

---

#### Note

Whenever a value set definition changes, the deployment status of a flexfield that uses that value set changes to edited. If the change results from a patch, the deployment status of the flexfield changes to patched.

---

### Initial Deployment Status of Flexfields

The Oracle Fusion Applications installation loads flexfield metadata into the database. This initial load sets the flexfield status to Edited to indicate that the flexfield has not been deployed yet. The application provisioning process during installation deploys the predefined flexfields of the provisioned applications, which sets their status to Deployed if no errors are encountered.

When accessing a provisioned application, deployed flexfields are ready to use. In some cases, flexfield availability at runtime requires setup, such as defining key flexfields.

### Metadata Validation

Use the Validate Metadata command to view possible metadata errors before attempting to deploy the flexfield. Metadata validation is the initial phase of the Deploy and Deploy to Sandbox commands. By successfully validating metadata before running the deployment commands, you can avoid failures in the metadata validation phase of a deployment attempt. Errors in the metadata validation phase of deployment cause the deployment attempt to abort. Metadata validation results do not affect the deployment status of a flexfield.

## Flexfield Deployment Status: How It Is Calculated

Flexfield deployment status indicates how the flexfield metadata definition in the Oracle Fusion Applications database relates to the Application Development Framework (ADF) business components generated into a Metadata Services (MDS) repository.

### Settings That Affect Flexfield Deployment Status

If you have made a change to a flexfield and expect a changed deployment status, be sure you have saved your changes. No settings affect flexfield deployment status.

### How Flexfield Deployment Status Is Calculated

If the flexfield definition has been edited through the Define Flexfields activity task flows, the status is Edited. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. Any change, including if a value set used in a flexfield changes, changes the deployment status to Edited. If a flexfield has never been deployed, its status is Edited.

---

#### Note

When an application is provisioned, the provisioning framework attempts to deploy all flexfields in that application.

---

If you deploy the flexfield to a sandbox successfully, the status is Deployed to Sandbox. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a sandbox MDS repository. Whether the sandbox is active or not does not affect the deployment status. If the flexfield was deployed to a sandbox and has not been edited or re-deployed to the mainline since then, the status remains Deployed to Sandbox independent of whether the sandbox is active, or who is viewing the status.

If you deploy the flexfield successfully, meaning to the mainline, the status is Deployed. The latest flexfield metadata definition in the Oracle Fusion application matches the metadata definition that generated ADF business components in a mainline MDS repository. Change notifications are sent when a flexfield is deployed successfully to the mainline.

If either type of deployment fails so the current flexfield definition is not deployed, the status is Error. The deployment error message gives details about the error. The latest flexfield metadata definition in the Oracle Fusion application likely diverges from the latest successfully deployed flexfield definition.

If the flexfield definition has been modified by a patch, the status is Patched. The latest flexfield metadata definition in the Oracle Fusion application diverges from the latest deployed flexfield definition. If the flexfield definition was Deployed before the patch and then a patch was applied, the status changes to Patched. If the flexfield definition was Edited before the patch and then a patch was applied, the status will remain at Edited to reflect that there are still changes (outside of the patch) that are not yet in effect.

When a deployment attempt fails and you can access the Deployment Error Message for details.

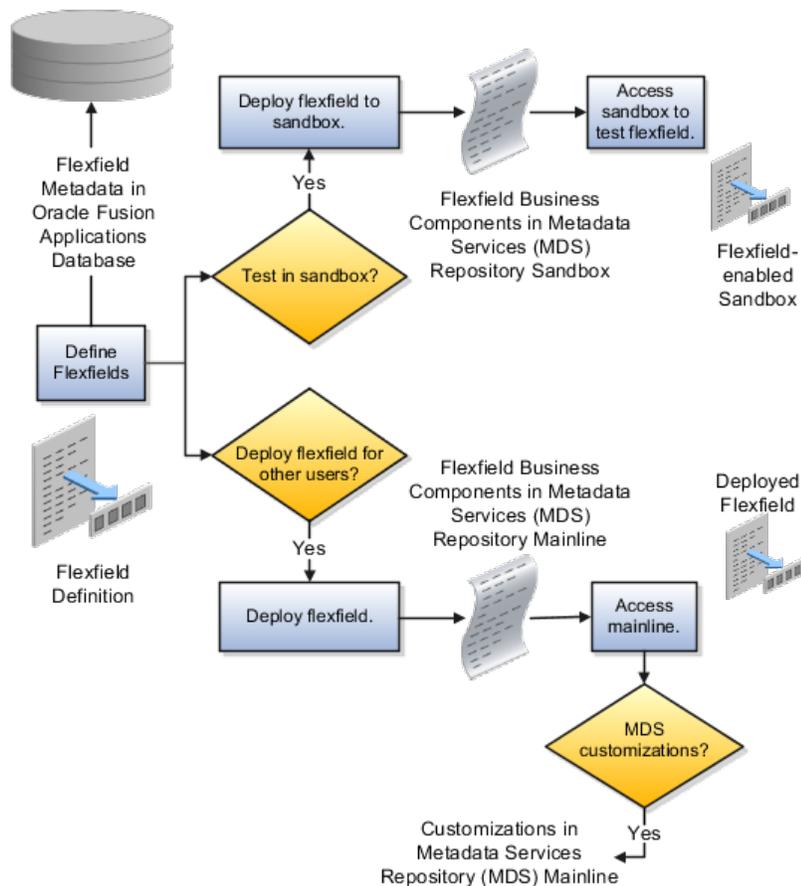
## Deploying a Flexfield-Enabled Sandbox: How It Works With Mainline Metadata

The flexfield definition in a sandbox corresponds to the flexfield metadata definition in the Oracle Fusion Applications database at the time the flexfield was deployed to the sandbox. When the flexfield is ready for end users, the flexfield must be deployed to the mainline.

A flexfield-enabled sandbox uses the following components.

- Flexfield metadata in the Oracle Fusion Applications database
- Flexfield business components in a sandbox Metadata Services (MDS) repository
- User interface customizations for the flexfield in the mainline MDS repository

The figure shows the two types of deployment available in the Manage Flexfields activity. Deploying a flexfield to a sandbox creates a sandbox MDS repository for the sole purpose of testing flexfield behavior. The sandbox is only accessible to the administrator who activates and accesses it, not to users generally. Deploying a flexfield to the mainline applies the flexfield definition to the mainline MDS repository where it is available to end users. After deploying the flexfield to the mainline, customize the page where the flexfield segments appear. Customization of the page in the sandbox MDS repository cannot be published to the mainline MDS repository.



## **Sandbox Metadata Services Repository Data**

Deploying the flexfield to a sandbox generates the Application Development Framework (ADF) business components of a flexfield in a sandbox MDS repository for testing in isolation.

---

### **Warning**

Do not make changes to flexfield segment display features in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.

---

## **Mainline Metadata Services Repository Data**

The Oracle Fusion Applications database stores the single source of truth about a flexfield. From this the ADF business component objects that implement the flexfield in the runtime user interface are generated in the mainline MDS repository when the flexfield is deployed.

## **Deploying a Flexfield-Enabled Sandbox: Points to Consider**

Deploying a flexfield to a sandbox creates a flexfield-enabled sandbox . Each flexfield-enabled sandbox contains only one flexfield.

You can test the runtime behavior of a flexfield in the flexfield-enabled sandbox. If changes are needed, return to the Define Flexfield tasks to change the flexfield definition.

When you deploy a flexfield to sandbox, the process reads the metadata about the segments from the database, generates flexfield Application Development Framework (ADF) business component artifacts based on that definition, and stores in the sandbox only the generated artifacts derived from the definition.

## **Sandbox MDS Repository Data**

The sandbox data allows you to test the flexfield in isolation without first deploying it in the mainline where it could be accessed by users.

---

### **Warning**

Do not make changes to flexfield segment display features in a flexfield-enabled sandbox as these changes will be lost when deploying the flexfield to the mainline.

---

## **Managing a Flexfield-Enabled Sandbox**

When you deploy a flexfield as a sandbox, that flexfield-enabled sandbox automatically gets activated in your user session. When you sign back in to see the changes, the sandbox is active in your session.

You can only deploy a flexfield to a sandbox using the Define Flexfields task flow pages.

You also can use the Manage Sandboxes feature in the Administration menu of the Setup and Maintenance work area to activate, access, or delete a flexfield-enabled sandbox.

---

**Note**

Whether you use the Define Flexfields or Manage Sandboxes task flows to access a flexfield-enabled sandbox, you must sign out and sign back in before you can see the changes you deployed in the runtime.

---

You cannot publish the flexfield from the sandbox to the mainline. You must use the Define Flexfields task flow pages to deploy the flexfield for access by users of the mainline because the flexfield configuration in the mainline is the single source of truth.

## Deploying Flexfields Using the Command Line: Explained

You can use the Manage Key Flexfields, Manage Descriptive Flexfields, and Manage Extensible Flexfields tasks to deploy flexfields. You can also use WebLogic Server Tool (WLST) commands for priming the Metadata Services (MDS) repository with predefined flexfield artifacts and for deploying flexfields.

The table describes the available commands.

WebLogic Server Tool Command	Description
<code>deployFlexForApp</code>	Deploys all flexfields for the specified enterprise application. Only flexfields whose status is other than deployed are affected by this command unless the option is enabled to force all flexfields to be deployed regardless of deployment status.  Initial application provisioning runs this command to prime the MDS repository with flexfield artifacts.
<code>deployFlex</code>	Deploy a single flexfield regardless of deployment status
<code>deployPatchedFlex</code>	Deploys flexfield changes that have been delivered using a flexfield Seed Data Framework (SDF) patch. Deploys flexfields that have a Patched deployment status.
<code>deleteFlexPatchingLabels</code>	Displays MDS label of flexfield changes for viewing and deleting patching labels.

Executing these commands outputs a report at the command line. The report provides the following information for every flexfield that is processed.

- Application identity (APPID)
- Flexfield code
- Deployment result, such as success or error

In case of errors, the report lists the usages for which the errors were encountered. If a runtime exception occurs, the output displays the traceback

information. For each WLST flexfield command, adding the `reportFormat='xml'` argument returns the report as an XML string.

Consider the following aspects of command line deployment.

- Preparing to use the WLST flexfield commands
- Using the `deployFlexForApp` command
- Using the `deployFlex` command
- Using the `deployPatchedFlex` command
- Using the `deleteFlexPatchingLabels` command
- Exiting the WLST and checking the results

## Preparing To Use the WLST Flexfield Commands

You can only execute the WLST flexfield commands on a WebLogic Administration Server for a domain that has a running instance of the Oracle Fusion Middleware Extensions for Applications (Applications Core) Setup application.

For more information on deploying the Applications Core Setup application, see the Oracle Fusion Applications Developer's Guide.

Ensure that the AppMasterDB data source is registered as a JDBC data source with the WebLogic Administration Server and points to the same database as the ApplicationDB data source.

Start the WebLogic Server Tool (WLST) tool, if it is not currently running.

UNIX:

```
sh $JDEV_HOME/oracle_common/common/bin/wlst.sh
```

Windows:

```
wlst.cmd
```

Connect to the server, replacing the user name and password arguments with your WebLogic Server user name and password.

```
connect('wls_username', 'wls_password', 'wls_uri')
```

The values must be wrapped in single-quotes. The `wls_uri` value is typically `T3://localhost:7101`.

For more information on the WLST scripting tool, see the Oracle Fusion Middleware Oracle WebLogic Scripting Tool.

## Using the `deployFlexForApp` Command

The `deployFlexForApp` command translates the product application's predefined flexfield metadata into artifacts in the MDS repository.

---

### Important

This command is run automatically when you provision applications. However, after custom applications development, you must run the `deployFlexForApp` command after you configure your application to read the flexfield artifacts from the MDS repository and before you log into the application for the first time, even if there is no predefined flexfield metadata.

---

This command does not deploy flexfields that have a status of Deployed unless the force parameter is set to `'true'` (the default setting is `'false'`).

For more information on priming the MDS partition with configured flexfield artifacts, see the Oracle Fusion Applications Developer's Guide.

From the WLST tool, execute the following commands to deploy the artifacts to the MDS partition, replacing `product_application_shortcode` with the application's short name wrapped in single-quotes.

```
deployFlexForApp('product_application_shortcode', 'enterprise_id')
[, 'force']
```

In a multi-tenant environment, replace `enterprise_id` with the Enterprise ID to which the flexfield is mapped. Otherwise, replace with `'None'` or do not provide a second argument.

To deploy all flexfields regardless of their deployment status, set force to `'true'` (the default setting is `'false'`). If you want to deploy all flexfields in a single-tenant environment, you either can set `enterprise_id` to `'None'`, or you can use the following signature:

```
deployFlexForApp(applicationShortName='product_application_shortcode', force='true')
```

---

### Tip

The application's short name is the same as the application's module name.

---

For more information about working with application taxonomy, see the Oracle Fusion Applications Developer's Guide.

## Using the `deployFlex` Command

From the WLST tool, execute the following command to deploy a flexfield, replacing `flex_code` with the code that identifies the flexfield, and replacing `flex_type` with the flexfield's type, which is either DFF, KFF, or EFF.

```
deployFlex('flex_code', 'flex_type')
```

The values must be wrapped in single-quotes.

## Using the `deployPatchedFlex` Command

Use the `deployPatchedFlex` command for situations where the patching framework does not invoke the command, such as when an application has been patched offline.

If the installation is multi-tenant enabled, the command deploys all patched flexfields for all enterprises. This command is not intended to be invoked manually.

Check with your provisioning or patching team, or the task flows for managing flexfields, to verify that the flexfield has a Patched deployment status.

From the WLST tool, execute the following command to deploy the artifacts to the MDS partition of all flexfields that have a READY status.

```
deployPatchedFlex()
```

Execute the following command to deploy all flexfields that have either a READY status or an ERROR status.

```
deployPatchedFlex(mode='RETRY')
```

## Using the deleteFlexPatchingLabels Command

Whenever you deploy flexfield changes to MDS using the `deployPatchedFlex()` WLST command, an MDS label is created in the format `FlexPatchingWatermarkdate+time`. Use the `deleteFlexPatchingLabels` command to inquire about and delete these labels.

From the WLST tool, execute the `deployPatchedFlex()` command with no arguments to delete the flexfield patching labels.

To output a list of flexfield patching labels, execute the command with the `infoOnly` argument, as follows:

```
deleteFlexPatchingLabels(infoOnly='true')
```

## Exiting the WLST and Checking the Results

To exit the tool, execute the following command.

```
disconnect()
```

Optionally, sign into the application, access user interface pages that contain flexfields, and confirm the presence of flexfields for which configuration exists, such as value sets, segments, context, or structures.

## Manage Value Sets

### Value Sets: Explained

A value set is a set of valid values that you assign to a flexfield segment.

An end user enters a value into a flexfield segment while using the application. The flexfield validates the segment against the set of valid values that you configured as a value set and assigned to the segment.

For example, you can define a required format, such as a five digit number, or a list of valid values, such as green, red, and blue.

Flexfield segments are usually validated, and typically each segment in a given flexfield uses a different value set. You can assign a single value set to more than one segment, and you can share value sets among different flexfields.

---

### Caution

Be sure changes to a shared value set are compatible with all flexfields segments using the value set.

---

Defining value sets involves making decisions about the following.

- Validation
- Security
- Precision and scale
- Usage and deployment

### **Validation**

The following types of validation are available for value sets.

- Format only, where end users enter data rather than selecting values from a list
- Independent, a list of values consisting of valid values you specify
- Dependent, a list of values where a valid value derives from the independent value of another segment
- Subset, where the list of values is a subset of the values in an existing independent value set
- Table, where the values derive from a column in an application table and the list of values is limited by a WHERE clause

A segment that uses a format only value set does not present a list of valid values to users.

You can build a tree structure from the values in an independent value set whose data type is character.

---

### **Note**

Adding table validated value sets to the list of available value sets available for configuration is considered a custom task.

---

For more information, see the Oracle Fusion Applications Extensibility Guide.

### **Security**

Value set security only works in conjunction with usage within flexfield segments. If a value set is used standalone, meaning outside a flexfield, value set security is not applied, but Oracle Fusion data security is enforced.

You can specify that data security be applied to the values in flexfield segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

Value set security applies at the value set level. If a value set is secured, every usage of it in any flexfield is secured. It is not possible to disable security for individual usages of the same value set.

Value set security applies to independent, dependent, or table-validated value sets.

Value set security applies mainly when data is being created or updated, and to key flexfield combinations tables for query purposes. Value set security does not determine which descriptive flexfield data is shown upon querying.

Security conditions defined on value sets always use table aliases. When filters are used, table aliases are always used by default. When predicates are defined for data security conditions, make sure that the predicates also use table aliases.

For key flexfields, the attributes in the view object that correspond to the code combination ID (CCID), structure instance number (SIN), and data set number (DSN) cannot be transient. They must exist in the database table. For key flexfields, the SIN segment is the discriminator attribute, and the CCID segment is the common attribute.

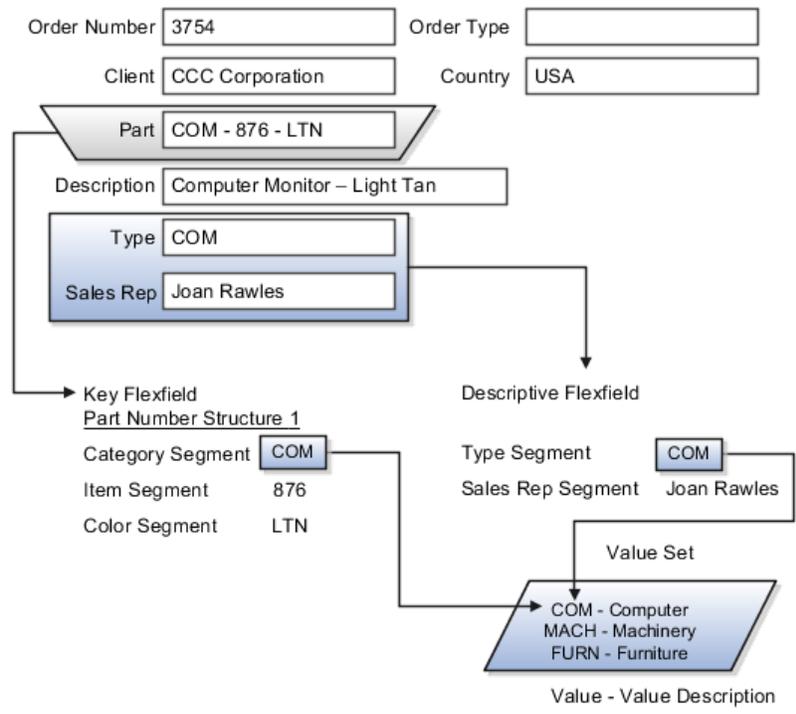
### Precision and Scale

For a value set with the data type Number, you can specify the precision (maximum number of digits user can enter) or scale (maximum number of digits following the decimal point).

### Usage and Deployment

The usage of a value set is the flexfields where that value set is used. The deployment status of flexfields in which the value set is used indicates the deployment status of the value set instance.

The figure shows a value set used by a segment in a key flexfield and the context segment of a descriptive flexfield.



For most value sets, when you enter values into a flexfield segment, you can enter only values that already exist in the value set assigned to that segment.

Global and context-sensitive segment require a value set. You can assign a value set to a descriptive flexfield context segment. If you specify only context values, not value sets for contexts, the set of valid values is equal to the set of context values.

## Defining Value Sets: Critical Choices

Validation and usage of value sets determine where and how end users access valid values for attributes represented by flexfield segments.

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### Tip

As a flexfield guideline, define value sets before configuring the flexfield, because you assign value sets to each segment as you configure a flexfield.

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### Value Sets for Context Segments

When assigning a value set to a context segment, you can only use table-validated or independent value sets. The data type must be character and the maximum length of the values being stored must not be larger than column length of the context.

### Format Only Validation

The format only validation type enables end users to enter any value, as long as it meets your specified formatting rules. That is, the value must not exceed the maximum length you define for your value set, and it must meet any format requirements for that value set.

For example, if the value set allows only numeric characters, your user could enter the value 456 (for a value set with maximum length of three or more), but could not enter the value ABC. A format only value set does not otherwise restrict the range of different values that users can enter. For numeric values, you can also specify if a numeric value should be zero filled or how many digits should follow the radix separator.

### Interdependent Value Sets

You cannot specify a dependent value set for a given segment without having first defined an independent value set that you apply to another segment in the same flexfield. You use a dependent value set to limit the list of values for a given segment based on the value that the end user has chosen for a related independent segment. The available values in a dependent list and the meaning of a given value depend on which value was selected for the independently validated segment.

For example, you could define an independent value set of U.S. states with values such as CA, NY, and so on. Then you define a dependent value set of U.S. cities, with values such as San Francisco and Los Angeles that are valid for the independent value CA, and New York City and Albany that are valid for the independent value NY. In the UI, only the valid cities can be selected for a given state.

Because you define a subset value set from an existing independent value set, you must define the independent value set first. End users do not need to choose a value for another segment first to have access to the subset value set.

## Table Validation

Typically, you use a table-validated set when the values you want to use are already maintained in an application table (for example, a table of vendor names). Table validation allows you to enable a segment to depend upon multiple prior segments in the same context or structure.

Table-validated value sets have unique values across the table, irrespective of bind variables. The WHERE clause fragment of the value set is considered if it does not have bind variables. If it has bind variables, the assumption is that the values are unique in the value set.

## Range

In the case of format, independent, or dependent value sets, you can specify a range to further limit which values are valid. You can specify a range of values that are valid within a value set. You can also specify a range validated pair of segments where one segment represents the low end of the range and another segment represents the high end of the range

For example, you might specify a range for a format-only value set with format type Number where the user can enter only values between 0 and 100. If you use a table value set, you cannot reference flexfield segments in the WHERE clause of the value set. For example, the WHERE clause cannot reference a segment or a value set.

## Security

In the case of independent and dependent values, you can specify that data security be applied to the values in segments that use a value set. Based on the roles provisioned to users, data security policies determine which values of the flexfield segment end users can view or modify.

When you enable security on a table-validated value sets, the security rule that is defined is absolute and not contingent upon the bind variables (if any) that may be used by the WHERE clause of the value set. For example, suppose a table-validated value set has a bind variable to further filter the value list to x, y and z from a list of x, y, z, xx, yy, zz. The data security rule or filter written against the value set should not assume anything about the bind variables; it must assume the whole list of values is available and write the rule, for example, to allow x, or to allow y and z. By default in data security all values are denied, and show only rows to which access has been provided.

## Maintenance

There is no need to define or maintain values for a table-validated or subset value set, as the values are managed as part of the referenced table or independent value set, respectively.

If your application has more than one language installed, or there is any possibility that you might install one or more additional languages for your

application in the future, select **Translatable**. This does not require you to provide translated values now, but you cannot change this option if you decide to provide them later.

For more information about defining value sets, see the Oracle Fusion Applications Extensibility Guide.

## Manage Descriptive Flexfields

### Descriptive Flexfields: Explained

Descriptive flexfields provide a way to add custom attributes to entities, and define validation and display properties for them. These attributes are generally standalone. They don't necessarily have anything to do with each other and are not treated together as a combination.

All Oracle Fusion Applications business entities that you can access are enabled for descriptive flexfields. Descriptive flexfields are optional. You can choose to configure and expose segments for the descriptive flexfield defined and registered in your database, or not.

A descriptive flexfield provides a set amount of segments for an entity. The segments of a descriptive flexfield are made available to end users as individual fields in the application user interface.

#### Context

A descriptive flexfield can have only one context segment to provide context sensitivity.

The same underlying column can be used by different segments in different contexts. For example, you can define a Dimensions context that uses the ATTRIBUTE1 column for height, the ATTRIBUTE2 column for width, and the ATTRIBUTE3 column for depth. You can also define a Measurements context that uses the same columns for other attributes: the ATTRIBUTE1 column for weight, the ATTRIBUTE2 column for volume, and the ATTRIBUTE3 column for density.

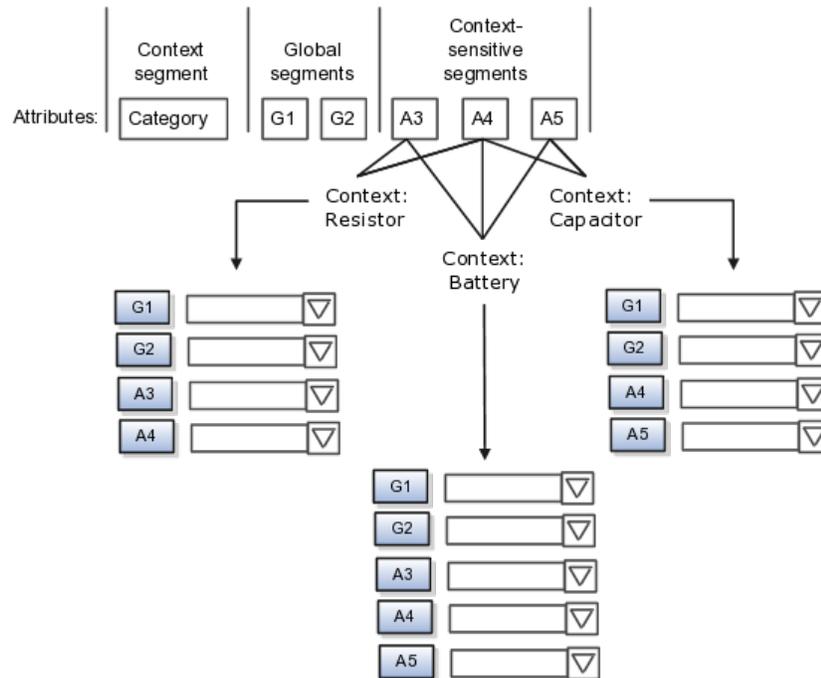
#### Segments and Contexts

Descriptive flexfield segments are of the following types.

Segment Type	Runtime Behavior
Global segment	Always available
Context segment	Determines which context-sensitive segments are displayed
Context-sensitive segment	Displayed depending on the value of the context segment

In the figure, a descriptive flexfield has one context segment called Category for which there are three values: Resistor, Battery, and Capacitor. In addition, the descriptive flexfield consists of two global segments that appear in each of the

contexts, and three context-sensitive segments that only appear in the context in which they are configured.



Application development determines the number of segments available for configuring. During implementation you determine which attributes to add using the available segments, and the context values and the combination of attributes in each context. A segment can be used for different attributes, such as Height in Context1 and Color in Context2. Each segment of a descriptive flexfield that you make available to end users is exposed in the user interface as an individual field.

### Value Sets

For each global and context-sensitive segment, you configure the values allowed for the segment and how the values that end users enter are validated, including interdependent validation among the segments.

## Managing Descriptive Flexfields: Points to Consider

Configuring descriptive flexfields involves managing the available flexfields registered with your Oracle Fusion Applications database and configuring their flexfield-level properties, defining and managing descriptive flexfield contexts, and configuring global and context-sensitive segments.

Every descriptive flexfield is registered to include a context segment, which you may choose to use or not.

### Segments

You can assign sequence order numbers to global segments and to context-sensitive segments in each context. Segment display is always in a fixed order.

You cannot enter a number for one segment that is already in use for a different segment.

Value sets are optional for context segments. The value set that you specify for a context segment consists of a set of context codes, each of which corresponds to a context that is appropriate for the descriptive flexfield. If you do not specify a value set for a context segment, the valid values for that context segment are derived from the context codes. The definition of each context segment specifies the set of context-sensitive segments that can be presented when that context code is selected by the end user.

For reasons of data integrity, you cannot delete an existing context. Instead, you can disable the associated context value in its own value set by setting its end date to a date in the past.

You can configure the individual global segments and context-sensitive segments in a descriptive flexfield. These segment types are differentiated by their usage, but they are configured on application pages that use most of the same properties.

### **Usages**

Descriptive flexfield usages allow for the same definition to be applied to multiple entities. Descriptive flexfield tables define the placeholder entity where the flexfield segment values are stored once you have configured the descriptive flexfield.

### **Parameters**

Parameters are public arguments to a descriptive flexfield. Parameters provide outside values in descriptive flexfield validation. Parameters can be referenced by the logic that derives the default segment value and in table-validated VALUE set WHERE clauses.

### **Delimiters**

A segment delimiter or separator visually separates segment values when the flexfield is displayed as a string of concatenated segments.

## **Enabling Descriptive Flexfield Segments for Business Intelligence: Points to Consider**

A descriptive flexfield that is registered in the database as enabled for Oracle Business Intelligence (BI) includes a BI Enabled setting for each of its segments. When a global, context, or context-sensitive segment is BI-enabled, it is available for use in Oracle Business Intelligence.

The following aspects are important in understanding BI-enabled flexfield segments.

- Flattening business components to use BI-enabled segments in Oracle BI.
- Equalizing context-sensitive segments to prevent duplication and complexity in the flattened components

- Mapping attributes of flattened business components to logical objects in Oracle BI.
- Managing the labels that map segments to logical objects in Oracle BI.

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly-generated attributes in business intelligence applications. For additional information about import, refer to the Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition).

## Flattening

When you deploy a business intelligence-enabled descriptive flexfield, the deployment process generates an additional set of flattened business components for use in Oracle BI. The flattened business components include attributes for business intelligence-enabled segments only.

Flattened components include one attribute for the BI-enabled context-segment, and one attribute for each business intelligence-enabled global segment. For BI-enabled context-sensitive segments, if you assigned a label to the segment, the flattened components include an additional single attribute representing segments with that label. If you did not assign a label, the flattened components include a discrete attribute for each BI-enabled context-sensitive segment in each context.

## Equalization

You can prevent duplication and the extra workload and complexity that result from the flattening process by assigning a label to any set of context-sensitive segments that serve the same purpose in different contexts. BI-enabled context-sensitive segments that have labels are equalized so that the flattened business components include one attribute for each label, consolidated across contexts. Non-labeled context-sensitive segments are not equalized across context values, so the flattened components include a separate attribute for each context-sensitive segment for each context value.

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### Note

It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

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## Mapping to Logical Objects in Business Intelligence

Assign a label to a global segment, context segment, or context-sensitive segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

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### Note

Assigning a label to a context-sensitive segment serves to equalize the attribute across contexts, as well as map the equalized attribute to business intelligence.

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## Managing Labels

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across contexts.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label does not exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, context-sensitive segments without labels cannot be equalized across context values. The flattened components include a separate attribute for each non-labeled context-sensitive segment in each context.

## Manage Extensible Flexfields

### Extensible Flexfields: Explained

Extensible flexfields are like descriptive flexfields, with some additional features.

- You can add as many context-sensitive segments to the flexfield as you need. You are not dependent on the number of segments predefined and registered for the flexfield.
- You can configure a one-to-many relationship between the entity and its extended attribute rows.
  - A row of data can have multiple contexts associated with it.
  - A row of data can have multiple occurrences of the same context.
- You can configure contexts in groups so the attributes in the context always appear together in the user interface.
- You can use existing hierarchical categories so that entities inherit the contexts that are configured for their parents. Contexts are reusable throughout categories.
- You can specify view and edit privileges for the extensible flexfield segments to control who sees the attributes and who can change the attribute's values.

When you configure a context for multiple rows per entity, the segments are displayed as a table.

Unlike descriptive flexfields, the extension columns corresponding to extensible flexfields segments are part of extension tables, separate from the base application table. Unlike descriptive flexfield contexts, the set of attributes in an extensible flexfield context remains constant and does not differ by context value.

An extensible flexfield describes an application entity, with the runtime ability to expand the database that implementation consultants can use to define the data structure that appears in the application.

Extensible flexfields support one-to-many relationships between the entity and the extended attribute rows.

## Usages

As with descriptive flexfields, you can define multiple usages for an extensible flexfield, which enables several application tables to share the same flexfield.

For example, a flexfield for shipping options can be used by both a Supplier table and a Buyer table. In addition, you can associate a context with one, some, or all of the flexfield's usages. Thus, with the shipping information example, you can associate a warehouse context with the Supplier usage, a delivery location context with the Buyer usage, and a ship-via context with all usages.

## Categories

Extensible flexfields support multiple contexts, and the contexts can be grouped into categories. Every extensible flexfield has at least one category, or root category, and some extensible flexfields support a hierarchy of categories, where a given category can inherit contexts from its parent categories.

You can define categories for extensible flexfields, and you can associate any combination of contexts with a given category.

For example, the Electronics and Computers category hierarchy might include a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on. The Home Entertainment product might have contexts that specify voltage, dimensions, inputs and outputs. Contexts are reusable within a given extensible flexfield. For example, the dimensions context could be assigned to any category that needs to include dimensional information.

## Pages

Extensible flexfields allow you to combine contexts into groups known as pages, which serve to connect the contexts so they will always be presented together in the application user interface.

Each application page corresponds to one extensible flexfield category, with a separate region of the page for each associated context.

## Managing Extensible Flexfields: Points to Consider

Configuring extensible flexfields involves managing the available flexfields registered with your application database and configuring their flexfield-level properties, defining contexts, categories, and pages, and configuring the segments for each extensible flexfield.

## Contexts

A context can be defined as single row or multi row. Single row contexts are the same as descriptive flexfields contexts. A single row context has only one set of context-sensitive segments. A multi-row context enables you to associate multiple sets of values with the same object instance.

For example, for a BOOK table, you could create a multi-row context named chapters that contains a chapter segment and a number of pages segment. Multiple chapters can then be associated with each book in the BOOK table.

Set the context to translatable so free-form text entered by end users is stored in the language of the user's locale, and different translations of that text can be stored in other languages. Segments in the translated contexts should utilize format-only value sets for storing free-form, user-entered text.

## Categories

A category is a grouping of related data items that can be considered to belong together. You can associate any combination of contexts with a given category.

A category hierarchy logically organizes a set of categories.

For example, the Electronics and Computers category hierarchy might include a Computer category and a Home Entertainment category, which in turn might include an Audio category and a TV category, and so on.

A category can be a child or sibling of an existing category. The hierarchy can be as simple or as complex as desired, with any combination of zero or more sibling categories and zero or more child categories. If no category is defined, the data items are grouped under a single predefined default category.

Each category has associated contexts that store relevant information about a data item in that category. For example, a Home Entertainment product has contexts that specify Voltage, Dimensions, Inputs and Outputs. Contexts are reusable within a given extensible flexfield; the Dimensions context could be assigned to any category that needs to include dimensional information.

If a hierarchy includes child categories, each child category inherits the contexts from its parent category; for example, the Home Entertainment category inherits Voltage and Dimensions from the Electronics and Computers category.

Each extensible flexfield is associated with a particular category hierarchy. You can think of category hierarchies as the defining framework for extensible flexfields and their contexts. A category hierarchy specifies which contexts are valid for each category.

An extensible flexfield can include multiple contexts which you define to support a given category. These contexts can be suitable for a variety of different purposes, but within a particular category, some contexts might be considered to be related to, or dependent on, each other. You can combine these contexts into groups known as pages, which serve to connect the contexts so they will always be presented together in the application user interface.

For example, the Home Entertainment category might have an Electrical Specifications page that contains the Voltage, Inputs and Outputs contexts, and

a Physical Specifications page that contains the Dimensions and Form Factor contexts.

## Indexed Segments

You can designate an extensible flexfield segment as indexed so that it is one of the selectively required attributes an end user can use in an attribute search. If you indicate in the Manage Extensible Flexfield UI page that a segment should be indexed, the column representing the segment must be added to the database index. This is commonly done by a database administrator (DBA).

When an extensible flexfield with indexed segments is deployed, search task flows are generated along with the other flexfield artifacts and specify the indexed attributes as selectively required. In the deployed extensible flexfield's search task flow, an end user must specify at least one of the indexed attributes in the search criteria. This prevents non-selective searches which could cause performance issues.

For example, if you index the memory and processor attributes and ensure that the corresponding columns in the database are indexed, an end user can search an item catalog for computers by entering processor or memory or both as a search criterion. No search is performed if an end user enters an attribute as search criteria that is not indexed.

## Manage Key Flexfields

### Key Flexfields: Explained

Key flexfields provide a means to capture a key such as a part number, a job code, or an account code. A key flexfield consists of one or more segments, where each segment can have a meaning.

For example, a part number 10-PEN-BLA-450 might correspond to a black pen from vendor #450 sold by division #10 (office supplies). Behind the scenes, the application uses a unique number, 13452, for this part, but the end user always see the 10-PEN-BLA-450 part number.

The following aspects are important to understanding key flexfields.

- Architecture
- Segments and segment labels
- Structures
- Segment and structure instances
- Combinations
- Dynamic combination creation
- Security

Key flexfields are not optional. You must configure key flexfields to ensure that your applications operate correctly. You configure and maintain key flexfield definitions with the Manage Key Flexfields task.

## Architecture

When you configure a key flexfield, you define metadata about the key flexfield such as how many segments are in a structure, how many structures the flexfield uses, what value sets each segment uses, and so on. This is flexfield metadata stored in flexfield metadata tables.

Based on the flexfield metadata, actual part numbers are captured at runtime as a combination of segment values and stored in a combinations table. A combinations table contains all the segment columns for a flexfield, plus a unique ID column and a structure instance number column that differentiates multiple arrangements of the segment columns.

For example, a part number that can be comprised of multiple segments can be represented by a key flexfield. A part number key flexfield has a corresponding combinations table, where the flexfield stores a list of the complete codes, with one column for each segment of the code, together with the corresponding unique ID and structure instance number for the code. When users define a new part number or maintain existing part numbers in the parts catalog, they directly maintain rows in the combination table.

The foreign key table contains a different business entity than the combinations table. For example, the business entity in the foreign key table is order lines or invoice lines that contain foreign key references to parts for ordering and so on. Any number of foreign key tables can reference a particular entity represented by a key flexfield.

## Segments and Segment Labels

A key flexfield consists of segments. Segments consist of a prompt, a short prompt, display width, a number that determines where in the sequence of a key flexfield structure the segment exists, the range type and the column name of the attribute being captured by the segment, a default value set and a label for the segment. A segment label identifies a particular segment of a key flexfield. Segment labels are defined and made available by applications development.

Applications identify a particular segment for some purpose such as security or computations. Segment name or segment order cannot reliably identify a segment because key flexfield segments can be configured to appear in any order with any prompts. A segment label functions as a tag for a segment.

For example, Oracle Fusion General Ledger needs to identify which segment in the Accounting Flexfield contains balancing information and which segment contains natural account information. General Ledger uses a segment label to determine which segment you are using for natural account information. When you define your Accounting Flexfield, you must specify which segment label apply to which segments.

Some labels must be unique, and cannot be applied to more than one segment in each structure. Other labels are required, and must be applied to at least one segment in each structure.

A segment label orients an end user's search of segments, such as the Cost Center label for all segments across key flexfields that capture a value for cost center.

## Structures

A key flexfield structure definition includes the number of segments and their order.

In some applications, different users need to see different segment structures for the same flexfield. A key flexfield can have multiple structures if registered to support more than one structure.

The flexfield can display different fields for different end users based on a data condition in your application data, such as the value of another field entered by the end user or the user's role. For example, the correctly formatted local postal address for customer service inquiries differs based on locale. A postal address key flexfield could display different segments and prompts for different end users based on a location condition in your application data, such as the user's role or a value entered by the user.

Each structure can have one or more segments. Thus a segment is a child of a structure. If you want to store a particular segment, such as Cost Center, in two different structures, you must define the segment separately in each structures.

Each structure may have one or more structure instances. Each instance of a structure shares the same number and order of segments, but differs in the allowable values or value sets that validate the segments.

### Structure and Segment Instances

You can define multiple configurations of a key flexfield structure. These structure instances have the same segment structure, in the same sequence order. They differ primarily in how each segment is validated. You define a structure instance for each key flexfield and each key flexfield structure instance.

The segments in a key flexfield structure instance are segment instances. A segment instance is a segment with a specific value set assigned to it.

If a key flexfield has been registered with a tree structure, you can specify a tree code for a segment instance, where the tree code defines a hierarchical relationship between the segment values.

### Combinations

A combination is a complete code, or combination of segment values that makes up the code, that uniquely identifies an object.

For example, each part number is a single combination, such as PAD-YEL-11x14 or 01-COM-876-7BG-LTN. In these combinations, the hyphen is the segment separator. If you had ten parts you would define ten combinations. A valid combination is simply an existing or new combination that can currently be used because it is not out of date or disabled, and does not violate cross-validation or security rules. A combination has different segments depending on the flexfield structure being used for that combination. Any combination is associated with only one particular flexfield structure.

Many Oracle Fusion Applications products refer to a key flexfield combination by using the name of the entity or the key flexfield itself. For example, Oracle

Fusion Assets uses the asset key flexfield and refers to one of its combinations as an asset key or asset key flexfield. In another example, other Oracle Fusion Applications products including Oracle Fusion General Ledger (GL) refer to combinations of the accounting flexfield as account or GL account.

Each key flexfield has one corresponding table, known as the combinations table, where the flexfield stores a list of the complete codes, with one column for each segment of the code, together with the corresponding unique ID number (a code combination ID number or CCID) for that code. Then, other tables in the application have a column that stores just the unique ID for the code. For example, you may have a part number code, such as PAD-YEL-11x14. The Parts combinations table stores that code along with its ID, 57494. If your application allows you to take orders for parts, you might then have an Orders table that stores orders for parts. That Orders table would contain a single column that contains the part ID, 57494, instead of several columns for the complete code PAD-YEL-11x14.

Typically one combinations page maintains the key flexfield, where the key flexfield is the representation of an entity in your application. The combinations page is where you maintain individual combinations, such as part numbers.

### Dynamic Combination Creation

Dynamic combination creation is the insertion of a new valid combination into a combinations table from a page other than the combinations page.

Dynamic combination creation may be enabled at the following levels.

Level Of Dynamic Combination Creation	Controlled By:
Flexfield	Application development
Each usage or reference to the key flexfield	Application development
Structure instance	Administrators and implementation consultants
Other	Administrators and implementation consultants

If your key flexfield or certain usages or references of the key flexfield do not permit dynamic combination creation, you may control whether dynamic combination creation is enabled for each structure instance. If enabled, a user can enter a new combination of segment values using the flexfield window from a foreign key page. For example, when entering a transaction, a GL user can enter a new expense account code combination for an account that does not yet exist. Your application creates the new account by inserting the new combination into the combinations table behind the scenes. Assuming that the new combination satisfies any existing cross-validation rules, the flexfield inserts the new combination into the combinations table, even though the combinations table is not the underlying table for the foreign key page.

### Managing Key Flexfields: Points to Consider

Consider the plans for a key flexfield, security, and resulting runtime pages when configuring key flexfields.

## Planning

Plan structures carefully and allow for future needs.

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### Caution

Do not change the number, order, and maximum length of segments once you have acquired flexfield data.

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### Structure Delimiters

A delimiter separates the segments when they appear to end users. The delimiter value of a structure specifies the character used to visually separate segment values when the key flexfield is displayed as a string of concatenated segments in the UI.

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### Tip

Choose the delimiter value of your key flexfield carefully so that it does not conflict with the flexfield data. For example, if your data frequently contains periods, such as in monetary or numeric values, do not use a period as your segment separator. Any character you expect to appear frequently in your segment values or descriptions is not a good choice for the delimiter.

---

If you change the configuration of a key flexfield, such as the delimiter, the change affects the previously stored key flexfields with that structure.

## Security

Oracle Fusion data security enforces value set security.

Within key flexfields, value set security applies to the selection of the individual segment values in the segment list of values. When selecting a key flexfield segment value from the combination table, data security allows display of only the combinations whose segment values you have access to. Applications development controls whether or not value set security rules propagate to the foreign key table. By default they do.

## Runtime Pages

Application development determines the user interface (UI) pages used to render flexfields. The types of key flexfield UI pages are as follows.

- Combinations pages where underlying entity objects use the combinations table itself
- Foreign key pages where the underlying entity objects contain a foreign key reference to the combinations table
- Partial usage page where some or all of the key flexfield's segment columns are in a product table

The same key flexfield can be used in different ways on different pages.

A page with a foreign key reference has a base table or view that contains a foreign key reference to a combinations table with the actual flexfield segment columns. This allows manipulating rows containing code combination IDs (CCID).

A page with partial usage of a key flexfield presents segments that are defined on a product's transactional table in addition to being defined on a combinations table. In the case of a partial usage page, it is possible that only part of the configuration is visible. This allows the key flexfield to behave more like a descriptive flexfield.

A code combination maintenance page or combinations page presents the combinations table. This allows directly creating and maintaining code combinations. The combinations table contains all key flexfield segment columns and a unique ID column.

A typical application has one and only one combinations page. An application might not have a combinations page if it does not support maintenance by administrators.

A page containing a search region enables end users to select which attributes of the key flexfield view object to use as criteria to search for flexfield metadata.

For example, you can configure seven segments for the Account key flexfield. In a foreign key reference page, end users see the typical key flexfield picker with all seven segments where they can search for combinations. In a partial usage page using the same key flexfield, end users potentially could see only a single segment such as the Cost Center labeled segment, or they might see multiple segments but displayed as individual segments rather than as a picker for choosing combinations.

For more information on key flexfield pages, see the Oracle Fusion Applications Developer's Guide.

## Key Flexfield Structures: Explained

A key flexfield structure arranges the segments of a key so you can reuse a single key flexfield in multiple combinations of the same or a subset of segments. Multiple instances of a single structure can accommodate differences in the value sets assigned to the structure's segments.

The structure determines the following aspects of a key flexfield.

- The segments to include
- The order of the segments
- Segment labels on the included segments
- Properties for each segment applied to the instances of the segments in an instance of the structure

### Managing Key Flexfield Structures

All the segments defined for a key flexfield are available to be included in a key flexfield structure.

You can define as many segments as there are defined segment columns in your key flexfield combinations table.

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**Restriction**

Be sure to add segments in the order that your key requires. Once deployed, the order cannot be changed.

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Enable segments to indicate that they are in use. A flexfield does not display disabled segments in runtime.

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**Tip**

To protect the integrity of your data, disable a segment if you have already used it to enter data.

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## Key Flexfield Structure Instances and Segment Instances: Explained

A key flexfield structure can have one or more alternate structure instances.

The instances of a key flexfield structure share the following aspects of the structure.

- The same set of segments
- The same arrangement of segments
- The same properties at the segment and structure levels

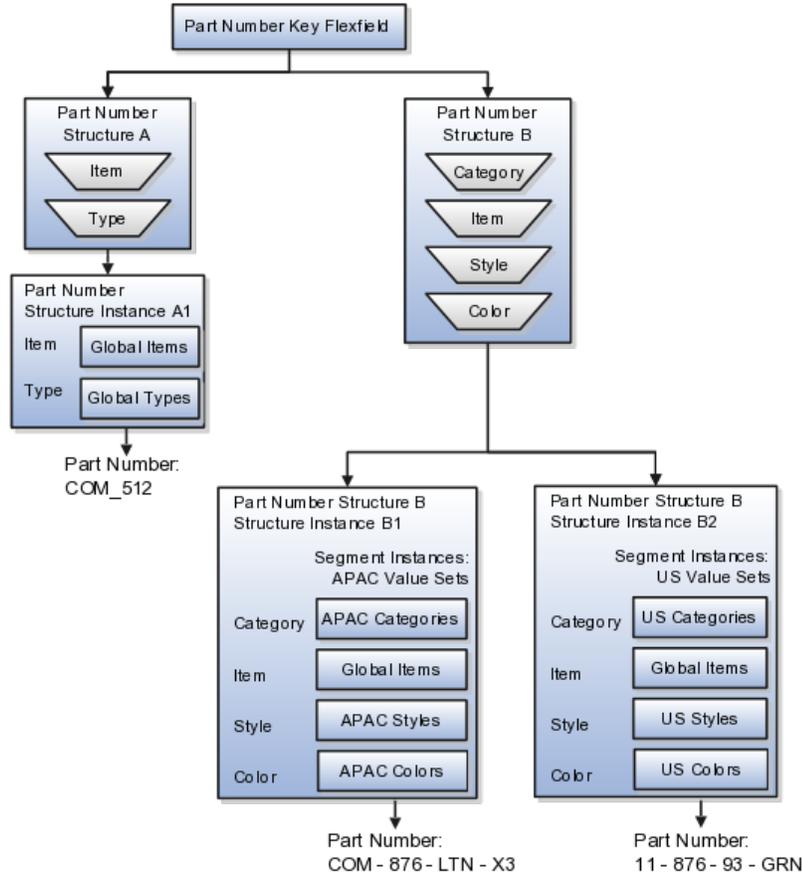
Differences among structure instances at the structure level include whether dynamic combination creation is allowed.

Differences among segment instances at the structure instance level include the following.

- Value set
- Default type and default value
- Tree code
- Whether the segment is any of the following
  - Required
  - Displayed
  - Enabled for business intelligence
  - Optional or required as a query criterion

For example, you could use one group of value sets for the US and another for France.

The figure shows two structures instances for a part number structure. The structures differ in the number of segments and the segment separators used. The structure instances of a structure share all properties that are defined for the structure, but can vary in the properties defined at the structure instance or segment instance level, such as the value set assigned to the segment instances.



### Query Required Segment Instances

You can designate a key flexfield segment instance as query required so that it is one of the selectively required attributes an end user can use in a key flexfield combination search. If you indicate in the Manage Key Flexfields UI page that a segment instance should be indexed, the column representing the segment must be added to the database index. This is commonly done by a database administrator (DBA).

Following deployment, the combination picker of the key flexfield displays the query required attributes as selectively required. An end user must specify at least one of the query required attributes in the search criteria. This prevents non-selective searches that could cause performance issues.

For example, if you mark the cost center and account attributes as query required and ensure that the corresponding columns in the database are indexed, an end user can search for combinations by entering cost center or account or both as a search criterion. No search is performed if an end user does not enter at least one query required attribute as search criteria.

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#### Tip

Index the Structure Instance Number column on your combinations table to improve performance.

---

## Dynamic Combinations

If a key flexfield supports dynamic combination creation, you can choose to enable this feature by selecting **Dynamic Combination Creation Allowed**. This will allow end users to enter values at runtime that produce new code combinations for the flexfield. If not enabled, new valid combinations can only be entered using the combinations table for the flexfield.

## Trees

If a tree code has been defined for the value set assigned to the segment instance, and you assign the tree code to the segment instance, tree hierarchy search operations are available on the segment values.

For a segment instance to be based on a tree, the following must be true.

- Application development registered the key flexfield with a tree structure.
- A tree code for that tree structure exists.
- The tree code that includes tree versions containing the values of the value set assigned to the segment instance.
- You assign the desired tree code directly to the segment instance.

Provided these conditions are satisfied, different segment instances that use the same value set can be assigned the same or different tree codes, meaning they use a different hierarchy definition over the same values.

## Enabling Key Flexfield Segments for Business Intelligence: Points to Consider

A key flexfield that is registered in the database as enabled for Oracle Business Intelligence (BI) includes a BI Enabled setting for each of its segment instances. When a segment instance is BI-enabled, it is available for use in Oracle Business Intelligence.

The following aspects are important in understanding BI-enabled key flexfield segments.

- Flattening business components to use BI-enabled segments in Oracle BI.
- Equalizing segments to prevent duplication and complexity in the flattened component.
- Mapping attributes of flattened business components to logical objects in Oracle BI.
- Managing the labels that map segments to logical objects in Oracle BI.

After you deploy a business intelligence-enabled flexfield, import the flexfield changes into the Oracle Business Intelligence repository to make use of the newly generated attributes in business intelligence applications. For additional information about import, refer to the Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition (Oracle Fusion Applications Edition).

## Flattening

When you deploy a business intelligence-enabled key flexfield, the deployment process generates an additional set of flattened business components for use in business intelligence. The flattened business components include attributes for business intelligence-enabled segment instances only.

If you assigned a label to a segment, the flattened components include a single attribute representing all segment instances with that label. If you did not assign a label, the flattened components include a discrete attribute for each BI-enabled segment instance in each structure.

### **Equalization**

You can prevent duplication and the extra workload and complexity that result from the flattening process by assigning a label to any set of segments that serve the same purpose in different structures. BI-enabled segments that have labels are equalized so that the flattened business components include one attribute for each label, consolidated across structures. Non-labeled segments are not equalized across structures, so the flattened components include a separate attribute for each segment for each structure.

---

#### **Note**

It may not be possible to equalize similarly labeled segments if they have incompatible data types or value set types.

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### **Mapping to Logical Objects in Business Intelligence**

Assign a label to a segment to map the corresponding attribute in the flattened components to a logical object in Oracle Business Intelligence. Using labels to map segments to BI logical objects minimizes the steps for importing the flexfield into Oracle Business Intelligence.

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#### **Note**

Assigning a label to a segment serves to equalize the attribute across structures, as well as map the equalized attribute to business intelligence.

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### **Managing Labels**

You may assign a predefined label (if available) to segments or create new labels for assignment, as needed. Specify a code, name, and description to identify each label. In the BI Object Name field, enter the name of the logical object in Oracle Business Intelligence to which the segment label should map during import. Specifying the BI logical object minimizes the steps for importing the flexfield into Oracle Business Intelligence and helps to equalize context-sensitive segments across structures.

If no labels are assigned to a BI-enabled segment, or the BI Object Name on the assigned label does not exist in business intelligence, you must manually map the segment to the desired logical object when importing into Oracle Business Intelligence.

In addition, segments without labels cannot be equalized across structures. The flattened components include a separate attribute for each non-labeled segment in each structure.

---

#### **Note**

Segment labels serve other functions as well, as presented in Key Flexfields: Explained.

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## **Key Flexfields: Example**

A key flexfield can capture expense account information.

## Scenario

When entering details for each expense, the user specifies an account to which the expense is charged.

## Entering Expense Accounts

A user interface for entering expenses gives the user the option of selecting an expense account that identifies the cost center and other details needed for processing the expense.

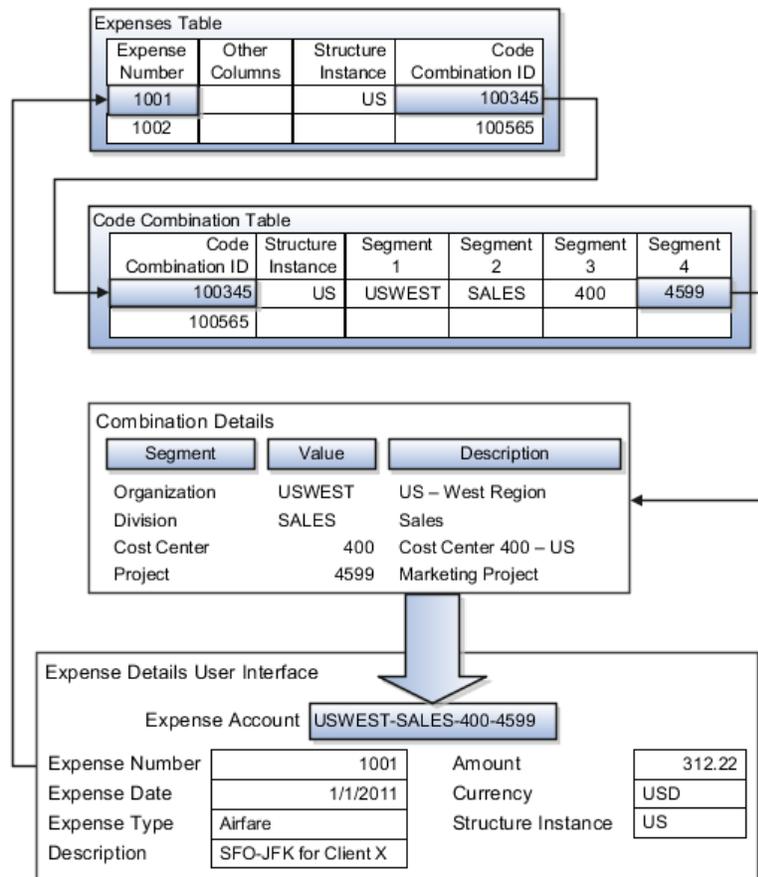
## Analysis

The expense account field is a foreign key reference to a code combination (EXPENSE\_LINES.EXPENSE\_ACCOUNT = ACCOUNTS.CCID).

## Code Combination Table for Entering Accounts and Employees

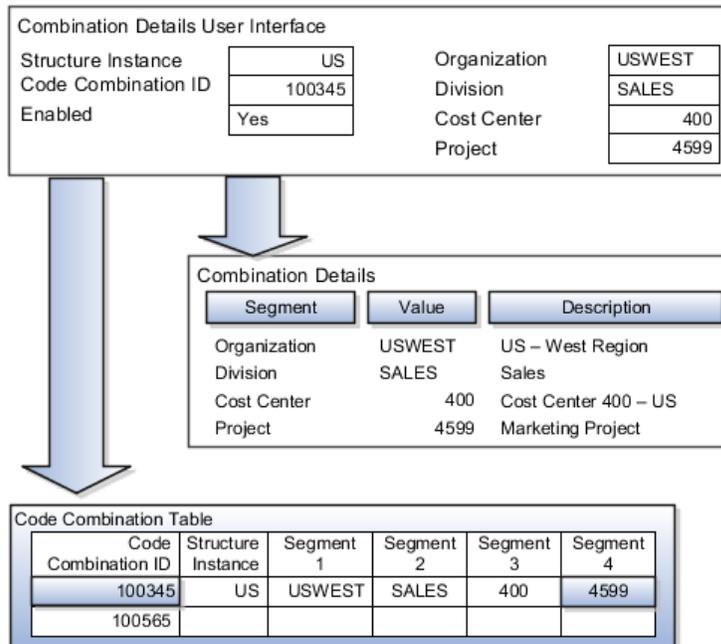
The code combination table supports entering account information, such as for expense accounts.

The figure shows the origin in the code combination table of the account specified by the user. The code combination ID record stores the information of the key flexfield segments used to assemble the expense account based on the key flexfield configuration.



The combinations page, which is the maintenance page for the key flexfield, is for managing rows in the combination table. In this example, managing the combinations means adding or editing account numbers that adhere to the key flexfield metadata rules.

The figure shows the code combination details for the example expense account reflected in the flexfield configuration and the code combination table.

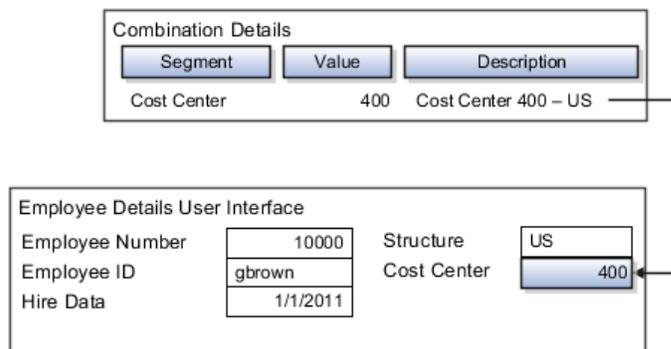


If dynamic combination creation is not enabled, then when entering an expense line, the user can only select an account that already exists in the ACCOUNTS (combinations) table. If they require an account that does not exist, they must consult with the appropriate application administrator who can add the account to the combinations table.

If dynamic combination creation is enabled, then when entering an expense line, the user can either select a pre-existing account, or type in a new account that created dynamically on the fly in the ACCOUNTS (combinations) table. Once the new combination is created, the same user can refer to it on the expense line.

When managing employee information, the user specifies the cost center that the employee belongs to. The cost center field corresponds to a single, labeled segment of the Account Key Flexfield and has metadata defined such as the allowable value set for that segment.

In this figure, instead of specifying a cost center ID reference to an account, only the Cost Center segment is used and the value is stored directly on the employee table.



## FAQs for Define Flexfields

### Why did my flexfield changes not appear in the runtime UI?

The ADF business components or artifacts of a flexfield, which are generated into an metadata services (MDS) repository when the flexfield is deployed, are cached within a user session. You must sign out and back in again to view flexfield definition changes reflected in the runtime application user interface page.

A flexfield's status relative to its deployment determines whether the flexfield segments as currently defined in the metadata are available to end users. The flexfield segments seen by end users in the runtime correspond to the flexfield definition that was last deployed successfully.

### What happens if a value set is security enabled?

Value set security is a feature that enables you to secure access to value set values based on the end user's role in the system.

As an example, suppose you have a value set of US state names. When this value set is used to validate a flexfield segment, and users can select a value for the segment, you can use value set security to restrict them to selecting only a certain state or subset of states based on their assigned roles in the system.

For example, Western-region employees may choose only California, Nevada, Oregon, and so on as valid values. They cannot select non-Western-region states. Eastern-region employees may choose only New York, New Jersey, Virginia, and so on as valid values, but cannot select non-Eastern-region states. Value set security is implemented using Oracle Fusion Applications data security.

### How can I set a default value for a flexfield segment?

When you define or edit a flexfield segment, you specify a default value from the values provided by the value set assigned to that segment.

You can set the default value to be a parameter, which means the entity object attribute to which the parameter you choose is mapped will provide the initial default value for the segment.

You can set to be a constant, if appropriate to the data type of the value set assigned to the segment.

In addition to an initial default value, you can set a derivation value for updating the attribute's value every time the parameter value changes. The parameter you choose identifies the entity object source attribute. Any changes in the value of the source attribute during runtime are reflected in the value of the segment.

If the display type of the segment is a check box, you can set whether the default value of the segment is checked or unchecked.

## Define Attachments

### Attachments: Explained

Attachments are pieces of supplementary information that users can associate with specific business objects such as expense reports or purchase orders. Attachments can be URLs, desktop files, text, or in cases where available, repository folders. For any given business object, a user may be able to only view attachments, or also create, delete, or edit attachments, depending on security. For more information on an introduction to attachments, see the Oracle Fusion Applications Developer's Guide.

#### Repository

Attachments are stored in a content server, the Oracle Enterprise Content Management document repository. Users have no real interaction with the repository unless the repository mode is enabled for attachments on specific business objects. In which case, users can share attachments among objects, update attachments by checking them out of and back in to the repository, and perform other tasks. Access to attachment files is controlled by a digital signing mechanism. Depending on security, users might have direct access to the repository.

#### Security

Data security that applies to a specific business object also applies to attachments for that object, as determined by the attachment entity defined for the object. For example, if a user has no access to a specific expense report, then the same user cannot access attachments for the expense report. You can also use attachment categories to control access and actions on attachments, based on roles associated with the category. For more information on securing attachments, see the Oracle Fusion Applications Developer's Guide.

### Attachment Entities: Explained

An attachment entity is usually a database entity, for example a table or view, that represents a business object attachments can be associated with. Each attachment UI must be defined with a corresponding attachment entity, which not only identifies the business object to attach to, but also controls what users can do. Attachment entities are used only in the context of attachments and exist separately from the database entities that they are based on.

Edit and create attachment entities on the Manage Attachment Entities page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Attachment Entities task. Though you would generally use predefined attachment entities with attachment UIs, you might need to create new entities, for example when developing custom UIs.

#### Entity Names

An attachment entity name should match the name of the table or view that represents the business object to attach to. The name is also used in the

repository folder that is automatically created to store attachments for the entity. The attachment entity display name should be something that users know to represent the business object.

### **Database Resource**

The data security policies associated with the database resource defined for the attachment entity would apply to attachments for that entity. For example, based on the database resource for the expense reports attachment entity, the same policies apply to attachments for expense reports. The database resource value must match the value in the OBJ\_NAME column in the FND\_OBJECTS table for the business object that the entity represents.

### **Enabling Security**

Security based on the database resource associated with the attachment entity is always in effect. What you can enable or disable is security based on attachment categories. If any of the attachment categories associated with the attachment entity has data security defined, then that security applies to this entity only if enabled.

## **Attachment Entities and Attachment Categories: How They Work Together**

The association between attachment entities and categories determines which categories can be used for an entity. For example, categories associated with the expense report attachment entity are available to be implemented in attachment UIs for expense reports. You can define these associations when managing either entities or categories. Any association changes in either the Manage Attachment Entities or Manage Attachment Categories page are reflected on the other page. You can access either page by starting in the Setup and Maintenance Overview page and searching for attachment tasks.

### **Managing Entities**

You determine which attachment categories are relevant to a particular entity on the Manage Attachment Entities page, and each entity must have at least one category. Depending on configuration, any or all of the available categories for that entity are used. For example, you assign three categories to the expense reports attachment entity. For a particular expense report page with attachments functionality, you can customize the attachments component to specify which of the three categories are used. Based on your selection, the data security defined for each category, if any, is applied to attachments on that page if the attachment entity has category-based security enabled.

### **Managing Categories**

If you create an attachment category and need to assign it to multiple attachment entities, use the Manage Attachment Categories page. The association means the same as the association on the Manage Attachment Entities page.

# Attachments Troubleshooting: Explained

Attachments UIs for users to add and manage attachments are fully functional as is, and users usually would not encounter issues. If you customize attachments in any way, for example by creating additional attachment categories and implementing data security on them, then some issues might arise.

## Issue: Unable to View, Add, Update, or Delete Attachments

Users encounter issues when trying to view attachments or perform actions such as adding attachments.

- Users can no longer see specific attachments that they were previously able to see.
- Likewise, they can no longer update or delete attachments.
- Users get an error stating that they do not have permission to add attachments.

## Resolution

Use the Manage Attachment Entities page to ensure that attachment categories are associated to the relevant attachment entity. For example, if users can no longer see attachments for an expense report, then search for the expense report attachment entity and assign all necessary categories to it. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what categories to assign.

If data security is implemented on the categories for the attachment entity, then verify that the Enable Security check box is selected in the Manage Attachment Entities page for that entity. Make sure that users have a role with the privileges shown in the following table, to view, add, update, or delete attachments with a specific attachment category.

Action	Privilege
View	Read Application Attachment (FND_READ_APPLICATION_ATTACHMENT_DATA)
Add or Update	Update Application Attachment (FND_UPDATE_APPLICATION_ATTACHMENT_DATA)
Delete	Delete Application Attachment (FND_DELETE_APPLICATION_ATTACHMENT_DATA)

For example, if users have the Read Application Attachment privilege for all categories associated with the expense report attachment entity, except the Receipts attachment category, then they can view all expense report attachments except those created with the Receipts category. Likewise, if users do not have the Update Application Attachment privilege for any attachment categories tied to the expense report attachment entity, then they cannot create any attachments at all for expense reports.

For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

Finally, certain attachments UI for users have predefined restrictions on categories in place. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

### **Issue: Missing Attachment Category**

Users can see existing attachments, but the attachments no longer have an attachment category value.

### **Resolution**

When the attachment was added, at least one category existed for the corresponding attachment entity, as otherwise the attachment could not have been added. Since then, the entity was edited so that it no longer has any assigned categories, so the user cannot see the category associated with that attachment.

Use the Manage Attachment Entities page to reassign attachment categories to the relevant attachment entity. For example, if users can no longer see the Receipts attachment category for an attachment to an expense report, then search for the expense report attachment entity and assign to it the Receipts category. You might need to check with your system administrator or help desk to determine the exact entity used on the page with the expenses attachments or what additional categories to assign.

Finally, certain attachments UI for users have predefined restrictions on categories in place. Your developers can also introduce additional filters to determine which document categories are available for a specific page. Check with your developers or help desk.

## **FAQs for Define Attachments**

### **What's an attachment category?**

An attachment category is used to classify and secure attachments. Each attachment user interface must be defined with at least one category for users to be able to add attachments. If there are multiple categories, users can view them and select one when adding attachments. For example, attachments for an expense report can be categorized as receipts, scanned invoice images, and so on.

You can also associate roles with categories to determine user access and actions for attachments, based on the categories assigned to the attachment entity. For example, security for expense report attachments can be based in part on the categories assigned to the expense report attachment entity. You can define multiple categories per module, and add and manage custom categories for your own purposes. For more information on attachment category data security, see the Oracle Fusion Applications Developer's Guide.

Use the Manage Attachment Categories page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Attachment Categories task.

## Set Activity Stream Options

### Activity Stream Options: Highlights

Activity Stream is a region on the Oracle Fusion Applications Welcome dashboard and other pages in various applications. Users track the activities and transactions of other users in this region. You can set options that affect the all Activity Stream regions for all users across your site. Individual users can still override your settings through Activity Stream preferences.

Activity stream settings are described in the Oracle Fusion Middleware User's Guide for Oracle WebCenter Portal: Spaces. When you read content from that guide, note that:

- Your setup applies to all users, not just yourself or any individual user.
- You can disregard discussions about how to access the settings, because you access the Set Activity Stream Options page by starting in the Setup and Maintenance Overview page and searching for the Set Activity Stream Options task.

#### Setting Activity Stream Options

- Define the types of users to display activities about in the Activity Stream region, the types of activities to track, and other settings.

See: Setting Activity Stream Preferences

## Manage Menu Customizations

### Managing Menu Customizations: Highlights

You can customize the Navigator menu, which is the main menu of Oracle Fusion Applications and is always available in the global area. Use the Manage Menu Customizations page, which you can access by starting in the Setup and Maintenance Overview page and searching for the Manage Menu Customization task.

An overview of customizing the Navigator menu is provided in the Oracle Fusion Applications Extensibility Guide. Details of the values you enter to define menu items are provided in the Oracle Fusion Applications Developer's Guide.

#### Overview

- Navigator menu customization involves managing items, which are nodes in the menu that take the user to the desired destination, and groups, which are categories of items. The label is the menu item or group text displayed to users, and only rendered items and groups are visible to users. Items and groups that are not rendered are displayed in italics in

the menu customization pages. Refer to the Oracle Fusion Applications Extensibility Guide.

See: Customizing the Navigator Menu

## Menu Items

When you customize items in the Navigator menu, you determine if the item takes users to a specific page in Oracle Fusion Applications or to another application or Web site. The details of what you enter to define the menu item depend on the type of destination. If you duplicate a menu item, the new item appears below the selected source item.

- For menu items to an Oracle Fusion Applications page, do not enter anything in the Destination field, but specify the focus view ID of the target page, Web application, secured resource name, application stripe, and page parameters list. The secured resource name identifies the page definition file that is used to secure resource grants for the page, for example `oracle.apps.view.pageDefs.CaseList_Form_Attach_UIShellPagePageDef`. The application stripe is the partition for the application in the policy store, for example `crm`. If you enter both a secured resource name and an application stripe, then the menu item is rendered only if the logged-in user has permission to view that secured resource. If either value is missing, then the item is not secured. Refer to the Oracle Fusion Applications Developer's Guide.

See: Menu Attributes Added by Oracle Fusion Middleware Extensions for Applications

- For menu items to another application or Web site, enter only the full URL in the Destination field.

## Manage Applications Core Common Reference Objects: Manage Applications Core Messages

### Common Messages: Points to Consider

Common messages, which have message names that begin with `FND_CMN` and message numbers between 0 and 999, are used throughout Oracle Fusion Applications. Each common message can appear in multiple places in any product family. For example, the `FND_CMN_NEW_SRCH` message can be used for any search to indicate that no results were found. Common messages that are of type error or warning are part of the message dictionary.

#### Editing Common Messages

Because a common message can be used in any application, consider the ramifications if you edit any aspect of the message, including incident and logging settings. Changes would be reflected in all instances where the message is used. For example, if you change the message text, make sure that the text would make sense to all users across Oracle Fusion Applications who might see it.

## Creating Common Messages

You can create custom common messages for use in multiple places within a single product. Do not begin the message name with FND\_CMN, but use another suitable convention. The message number should be within the range that is designated for the product.

# Manage Applications Core Common Reference Objects: Manage Applications Core Administrator Profile Values

## Creating and Editing Messages: Highlights

Each message in the message dictionary has many attributes and components, including message properties, text, and tokens, that you define when creating or editing the message.

Details about these messages are described in the Oracle Fusion Applications Developer's Guide.

### Message Properties

- The message type identifies the type of information that the message contains.

See: Understanding Message Types

- The message name and number are identifiers for the message. There are specific message number ranges for predefined messages in each application, and you should not edit numbers assigned to predefined messages. When creating custom messages, use only message numbers within the 10,000,000 to 10,999,999 range.

See: About Message Names

See: About Message Numbers

- The translation notes for predefined messages might contain internal content that you can disregard.

See: About Translation Notes

- The message category, severity, and logging enabled option are related to the incident and logging process.

See: About Grouping Messages by Category and Severity

See: Understanding Incidents and Diagnostic Logs with Message Dictionary

### Message Text and Tokens

- The message text comprises various components, some of which are displayed only to select users. To determine which component of the message text is displayed to a particular user, set the Message Mode

profile option (FND\_MESSAGE\_MODE) at the user level for that user. The message component short text is visible to all users and therefore, the profile option does not apply to this component. Also, the profile option applies only to messages in the message dictionary.

See: About Message Components

- Tokens are variables that represent values to be displayed in the message text.

See: About Tokens

## Profile Options and Related General Preferences: How They Work Together

Some Oracle Fusion Middleware Extensions for Applications profile options are related to general preferences in the global area.

### Preferences

The related general preferences are Default Application Language, Territory, Date Format, Time Format, Currency, and Time Zone. When the user changes any of these preferences, the stored values in LDAP are updated accordingly.

### Profile Options

The corresponding profile options are Default Language, Default Territory, Default Date Format, Default Time Format, Default Currency, and Default User Time Zone. No matter what you set for these profile options at any level, the preferences settings, or LDAP values, take precedence. The profile option value is used only if the LDAP value is not available. Updating the profile option value does not automatically update the value in LDAP or preferences.

## Document Sequences: Explained

In Oracle Fusion Applications, each business document or business event is uniquely identified by a document sequence number that you assign to it. However, the document sequencing feature must be turned on (enabled) on the business document or event to allow the assignment. For example, if document sequencing is enabled, you can assign a document sequence number to an invoice that gets generated in response to a purchase order. You can use document sequences as a proof to track successfully executed transactions as well as failed transactions. Additionally, a document sequence helps in generating an audit trail, which can be used to identify how a particular transaction passed through various applications.

Document sequencing can be managed automatically, manually, and gaplessly.

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### Note

Plan your document sequencing carefully before you use the options available in the application to apply sequence numbers. Avoid changes to the options

after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

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### **Automatic Sequencing**

Automatic document sequencing assigns a unique number to each document as it is generated, and this unique number is stored in the database. The numbering is sequential by date and time of creation. If you define a sequence to automatically number documents, you can provide an initial value to begin the sequence. In absence of a custom value, the default value 1 is used.

### **Manual Sequencing**

Manual sequencing requires you to assign a unique number to each document before it is generated. In manual sequencing, the numerical ordering and completeness of a transaction is not enforced. Users can skip or omit numbers when entering the sequence value. However, each time that a number is assigned, the application validates its uniqueness.

### **Gapless Sequencing**

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. As a result, the sequence is maintained for all the documents that are generated, and no sequence numbers are lost due to incomplete or failed document generation.

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### **Important**

Use this type of sequencing only if necessary because it may affect the performance of the system and slow down transaction processing.

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### **Sequential Numbering Enforced Profile Options**

The Sequential Numbering Enforced profile validates the documents being created and applies the relevant document sequence, based on the selected option. The following options are available:

- **Always Used:** Sequential numbering is enforced for all document categories. When this option is set, users cannot create a document if its document category is not assigned any active document sequence. The system displays an error.
- **Partially Used:** Sequential numbering is enforced for all document categories. However, if no sequence is available for the document, the system displays a warning. Users can either proceed without a document sequence or create and assign a document sequence before proceeding.
- **Not Used:** Sequential numbering is not enforced. In this mode, although the documents created do not require a document sequence to be assigned, the system checks for the uniqueness of the document number provided. The system does not display any warning or error.

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### **Restriction**

At the site level, the profile is by default set to Partially Used. Avoid changing this option as doing so may interfere with the validation logic and the data that was stored using the earlier option may not appear. However, you can change the option at the product or user level.

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# Common Customer Data Management Configuration: Define Source Systems

## Source Systems: Explained

Source systems are used to import data into Oracle Fusion Applications, and are used within the application to identify source data information. You can specify whether the source system is a Spoke system, such as a legacy system, or a Purchased system, such as data from a third party provider. You can also specify what type of data will be imported using the source system, for example, you can specify that a source system will import trading community members.

You can configure the following for a source system:

- Source system code, name, and description
- Source system type
- Enable for Items, Trading Community Members, Order Orchestration and Planning, and Assets

### Source System Code, Name, and Description

You can create a source system code to uniquely identify the source system. Source system codes are used by the application when creating references between source IDs and the Oracle Fusion Applications database IDs. You can create a source system name and description to provide information that is more descriptive than the source system code.

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#### Note

You cannot update the source system code once you have created the source system.

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### Source System Type

You must set up a source system as either a Spoke system, such as a legacy system, or a Purchased system, such as data from Dun & Bradstreet.

## **Enable for Items, Trading Community Members, Order Orchestration and Planning, and Assets**

You should select which types of entities will be imported from the source system into the Oracle Fusion Applications database from the following:

- Items
- Trading Community Members
- Order Orchestration and Planning
- Assets

You can select one or more of these entity types as required for the source system. It is important to enable the correct entity types because each import UI filters source systems based on their entity type. For example, if a source system is enabled for Trading Community Members, Items, and Assets, then the source system can be selected as a data source in the Trading Community Members, Items, and Asset import UIs, but the source system cannot be selected in the Orchestration and Planning import UI.

## **Source System Entities: Explained**

Source System Entities are the entities, such as addresses and parties, which can be imported using a specified source system.

When you import data from a source system, all of the entities in the source system data will be imported. Within the Source System Entities UI, you can choose to allow multiple source references, which allows multiple records from a source system to map to a single trading community record.

## **FAQs for Define Source Systems**

### **What happens if I allow multiple source system references?**

Allowing multiple source system references means that when you import data from a source system you can merge multiple, or duplicate, source system records and create one record in the Oracle Fusion Applications database.

If you do not allow multiple source system references then an Oracle Fusion Applications database record will be created for every source system record. This means that you could potentially create duplicate records in the Oracle Fusion Applications database.

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# Common Customer Data Management Configuration: Define Party Usages

## Party Usage Explained

Party usages describe how a party is used in the context of the implementing organization. For example, a person in the business community may be a consumer or contact. Rules can be associated to a party, and these rules determine when a party usage can and cannot be used.

These are the following rules that can be defined for a party usage:

- Assignment rules
- Exclusivity rules
- Incompatibility rules
- Transition rules

### Assignment rules

Assignment rules are used to define how the party usage can and cannot be assigned to parties. You can choose to allow unconditional party usage assignment, enabling the assignment to be manually created, or updated, by an administrator.

Alternatively, you can restrict the manual assignment and update of a party usage, which will mean that the party usage can only be created, or updated, by a business event. For example, creating an account for a party record can automatically assign the Customer party usage to that record.

You can also specify whether the party usage assignment can also be created or updated by the assignment of a party relationship. For example, the party relationship **Contact Of** can assign a party usage of Organization Contact.

### Exclusivity rules

Exclusivity rules enable you to restrict party usage assignment, so that between a specified date range the party usage can be the only usage allowed to be

assigned to a party. For example, you can set up an exclusivity rule that between January 1 2011 and February 1 2011 parties that have the Manufacturer party usage cannot have any other party usage assigned to them.

### **Incompatibility rules**

You can specify which party usages cannot be assigned concurrently to a party between a defined date range. For example, you can specify that you cannot assign a Sales Account usage to a party with a Sales Prospect usage, during January 1 2011 and December 31 2030.

### **Transition rules**

You are able to define which party usages can transition to the party usage you are creating or editing. Once a party has transitioned to the current party usage, the previous party usage is set with an end date. For example, when a party with the Prospective Partner party usage is assigned the Partner party usage, the Prospective Partner usage is set with an end date.

## **Party Usage Filter Rules Explained**

Party usage filter rules are a grouping of party usages that are used for searching and filtering in user interfaces. You can specify which party usages you want to include and exclude, and whether the party usage assignments are active or inactive.

For example, an Eligible Customers filter rule can include the Sales Prospect party usage, Sales Account, Legal Entity, and Customer party usages. The Eligible Customers filter rule can then be used in transactional UIs to filter out parties with party usages that are not included in the rule.

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### **Note**

Once a party usage filter rule is created you need to compile the filter rule before you can use the filter rule in a User Interface.

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## **FAQs for Define Party Usages**

### **How can I compile a party usage filter rule?**

In the Party Usage Filter Rule page click **Actions** in the header section, and then click **Compile Filter Rule**.

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# Common Customer Data Management Configuration: Define Identifiers

## Identifier Types: Explained

Create additional identifier types to provide extensions to party attributes. For example, you can create an additional identifier type to record a person's passport number.

You can choose which party types can use the additional identifier type. These party types can be Person or Organization, or both. You can also specify whether the value of an identifier type must be unique. For example, the passport number listed under each person's profile must be unique.

Additional identifier types do not automatically appear in the user interface. If you want to use identifier types in the application you will need to call the **Trading Community Member Name and Identifier Setup** web service.



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# Common Customer Data Management Configuration: Define Classifications

## Classifications: Explained

The classifications model provides you with a flexible tool to categorize entities such as parties, projects, tasks, and orders. Classifications enable you to classify an entity, such as a party, in a way that the rest of the world sees it, in addition to the way that it is referenced within your organization.

The major components of classifications are:

- Classification categories
- Classification rules
- Classification codes
- Classification code hierarchy
- Entity assignment

### Classification Categories

Classification categories give you the ability to classify entities under a broad subject area. For example, you can classify organizations based on the industries they operate in. Classification categories are a logical grouping of one or more classification codes and allow classification code rules to be defined.

### Classification Rules

Classification categories can have rules that define how classifications can be assigned to entities. When you set up classification categories specific rules can be created, such as allowing the parent classification code to be assigned to a party, and allowing multiple classification codes to be assigned to an entity.

### Classification Codes

The individual values within the classification category are called classification codes. For example, in the 1987 SIC classification category there is a classification

code of software that can be assigned to a party in the software industry. You can organize classification codes into a hierarchical tree, with a parent classification code at the top of the tree and child classification codes branching off from the parent code or other classification codes.

### **Classification Code Hierarchy**

You can create hierarchies of classification codes within a classification category. For example, you can set up a classification category of IT containing the classification codes hardware, keyboards, and printers. You can then set up the classification code of hardware as the parent code at the top of the tree, with the classification codes of keyboards and printers as child codes underneath. You can create further child classification codes, such as dot matrix, ink-jet, and laser below the printer classification code.

### **Entity Assignment**

Define which entities can be assigned to a classification category by entering the entity table name and creating a Where clause in SQL. Only entities that satisfy the Where clause are assigned the classification category. For example, a classification category called industries with the Where clause of where "party\_type = ORGANIZATION" would have the result that only organizations can be classified with the industries classification category.

## **FAQs for Define Classifications**

### **What happens if I allow parent code assignment?**

You can assign the parent classification code to an object, as well as the child classification codes. The parent classification code is the code at the top of the classification code tree.

If you don't allow parent classification codes to be assigned to an object, then you can assign only child classification codes, or codes that are below another classification code in the tree, to an object.

### **What happens if I allow multiple class code assignment?**

You can assign more than one classification code from this classification category to an object.

If you don't allow multiple classification codes to be assigned to an object, then you can assign only one classification code from this classification category to an object.

### **Can I update an existing entity assignment rule?**

No. You can delete the entity assignment rule and create a new one.

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## Common Customer Data Management Configuration: Define Data Formats

### Creating an Address Style Format: Worked Example

This example shows how to create an address style format for a specified address style.

Specify the address style format name and address style, create the format variation layout, and assign a locale.

### Creating the address style format name and specifying the address style

Create the address style format code and name, choose which address style you want to use to define this address style format, and specify if you want this address style format to be the default format for the selected address style.

1. On the Manage Address Formats page, click **Actions** and then click **Create**.
2. On the Create Address Style Format page, complete the fields in the Overview section, as shown in this table:

Field	Value
Code	CA_POSTAL_ADDR
Name	Canadian Postal Address Format
Address Style	Postal Address
Default	No

3. Click **Save**.

### Creating the format variation layout

Specify the address lines you want in the address and the position of the lines in the address layout. You also want to specify if the address lines will be

mandatory, whether the address lines will render in uppercase, and whether there will be blank lines after the address line.

1. In the Format section on the Create Address Style Format page, click on the **Format Layout** tab.
2. In the Format Variation section, click **Actions** and then click **New**.
3. Enter a variation number in the **Variation** field.
4. In the Format Variation Layout section, click **Actions** and then click **New**.
5. Complete the fields as shown in this table:

Field	Value
Line	1
Position	1
Prompt	Address line 1
Address Element	Address line 1
Required	Yes
Uppercase	No

6. Click **Actions**, then click **New** to create another address line.
7. Complete the fields as shown in this table:

Field	Value
Line	2
Position	2
Prompt	City
Address Element	City
Required	Yes
Uppercase	Yes

8. Click **Expand** on the City address line, then enter the value **1** in **Blank Lines Before**.
9. Continue to create as many address lines as you require. Click **Expand** if you want to enter blank lines and delimiters before, or after, an address line. In this section you can also create an Attribute Transform Function to change a data value into a different value.

## Assigning a locale

Specify the relevant countries for this address style format.

1. In the Format section on the Create Address Style Format page, click on the **Locale Assignment** tab.
2. Click **Actions** and then click **New**.
3. Choose a country for the address style format.

4. Continue to add the countries that will use this address style format.
5. Click **Save and Close**.

## Creating a Name Style Format: Worked Example

This example shows how to create a name style format for a specified name style.

Specify the name of the name style format and name style, create the format variation layout, and assign a locale.

### Creating the name of the name style format and specifying the name style

You create the name style format code and name, and choose which name style you want to use to define this name style format. You also specify if you want this name style format to be the default format for the selected name style.

1. On the Manage Name Formats page, click **Actions** and then click **Create**.
2. On the Create Name Style Format page, complete the fields in the Overview section, as shown in this table:

Field	Value
Code	CONCAT_NAME_US
Name	United States Concatenated Name Format
Name Style	Concatenated Name
Default	No

3. Click **Save**.

### Creating the format variation layout

Specify the name parts you want in the name, and the position of the name parts in the name layout. You also want to specify if the name parts will be mandatory, define whether the name parts will render in uppercase, and whether there will be blank lines after the name part.

1. In the Format section on the Create Name Style Format page, click on the **Format Layout** tab.
2. In the Format Variation section, click **Actions** and then click **Add Row**.
3. Enter a variation number in the **Variation** field.
4. In the Format Variation Layout section, click **Actions** and then click **Create**.
5. Complete the fields as shown in this table:

Field	Value
Line	1
Position	1
Prompt	Person First Name
Name Element	First Name
Required	No
Uppercase	No

- Click **Actions**, then click **Create** to create another address line.
- Complete the fields as shown in this table:

Field	Value
Line	2
Position	2
Prompt	Person Last Name
Name Element	Last Name
Required	No
Uppercase	No

- Continue to create as many name parts as you require. Click **Expand** if you want to enter blank lines and delimiters before, or after, a name part. In this section you can also create an Attribute Transform Function to change a data value into a different value.

## Assigning a locale

Specify the relevant countries for this name style format.

- In the Format section on the Create Name Style Format page, click on the **Locale Assignment** tab.
- Click **Actions** and then click **Create**.
- Choose United States in the **Country** field.
- Choose American English in the **Language** field.
- Click **Save and Close**.

## FAQs for Define Data Formats

### How can I create an address style format layout?

Click **New** in the Manage Address Formats page and add address lines in the Format Variation Layout section. If you require more than one address style format layout, then you can create a format variation and add a different address format layout.

## **How can I create a name style format layout?**

Click **New** in the Manage Name Formats page and add line entries for each part of the full name in the Format Variation Layout section, within the Create Name Style Format page. If you require more than one name style format layout, then you can create a format variation and add a different name format layout.



## Common CRM Configuration: Define Resource Information

### Manage Resource Note Types

#### Defining Notes: Points to Consider

A note is a record attached to a business object that is used to capture nonstandard information received while conducting business. When setting up notes for your application, you should consider the following points:

- Note Types
- Note Type Mappings

##### Note Types

Note types are assigned to notes at creation to categorize them for future reference. During setup you can add new note types, and you can restrict them by business object type through the process of note type mapping.

##### Note Type Mappings

After note types are added, you must map them to the business objects applicable to your product area. Select a business object other than Default Note Types. You will see the note types only applicable to that object. If the list is empty, note type mapping doesn't exist for that object, and default note types will be used. Select Default Note Types to view the default note types in the system. Modifying default note types will affect all business objects without a note type mapping. For example, you have decided to add a new note type of Analysis for your product area of Sales-Opportunity Management. Use the note type mapping functionality to map Analysis to the Opportunity business

object. This will result in the Analysis note type being an available option when you are creating or editing a note for an opportunity. When deciding which note types to map to the business objects in your area, consider the same issues you considered when deciding to add new note types. Decide how you would like users to be able to search for, filter, and report on those notes.

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**Note**

Extensibility features are available on the Note object. For more information refer to the article [Extending CRM Applications: how it works](#).

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## Define Resource Information

### Resource Directory: Explained

The Resource Directory offers detailed information about all the resources within the deploying organization. The Resource Directory also enables you to find and communicate with other resources, and to network and collaborate with them.

Use the Resource Directory to perform the following tasks:

- View and modify your profile
- View your organization and team membership information
- View information related to other organizations and teams
- View the profiles of other resources
- Communicate with other resources

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- View the profiles of other resources
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## Setting up Resources: Explained

Setting up resources involves identifying a person as a resource and specifying optional profile details as needed. This is an important step because until you identify users as resources, you cannot assign work objects to them.

While identifying a resource is the only mandatory task in resource setup, you may also need to perform some of the following tasks while setting up resources.

- Specify the end date for a resource's engagement with the deploying company
- Assign roles to resources
- Assign resources to organizations
- Assign resources to teams

## Identifying Resources: Explained

The Identify Resources step in the Manage Resources task is only needed to identify an existing employee, contingent worker, or partner member as a resource. Usually they are identified as resource in the Manage Users task, or in the Partner Center. If you have created partner members or internal users in the system without making them resources, you can identify them as resources in the Identify Resources step. Until you identify employees, contingent workers, and partner members as resources, you cannot assign them work objects.

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### Note

Resources need not necessarily belong to an organization, nor do they need to have specific roles assigned. However, it is best to always associate resources with an organization either as managers or as members. Similarly resources should also have at least one role as part of their organization membership. When you identify users as resources, all you indicate is that these new resources can now be assigned work within the deploying company.

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## Resource Skills and Resource Assignment: Explained

Resource skills help you assign resources to organizations and teams which can best utilize a specific set of skills. For example, if a resource is skilled in a specific technology, product, or business domain, you can assign the resource to teams and organizations that need resources possessing such skills. Use skill-

based resource assignment to get the best out of the resources available to the deploying company.

## **Resources: How They Work within a Team**

You can include resources from different resource organizations to work together on a work object as members of the same resource team. You can also include entire resource organizations into a resource team. Generally what resources can do is controlled by their resource organization membership and their hierarchy. Resource teams provide a flexible way of bringing resources together without any organizational or hierarchy-based restrictions.

### **Assigning Resources to Teams**

You can assign identified resources to teams and assign them roles within the team. Each resource can have a specific role within a team. Thus, a resource may play different roles in different teams.

## **FAQs for Define Resource Information**

### **What happens if I add a resource to the organization?**

When you add a resource to an organization, the resource becomes a member of the organization. This positions the resource within the organization hierarchy.

Organization membership information is part of the publicly visible details of a resource profile. This means that a resource's organization membership and reporting structure are visible to all active resources within the organization.

If you assign the entire organization to a resource team, all member resources are automatically assigned to the team. This information also becomes part of the resource's publicly visible profile.

### **What's the difference between a partner resource and an internal resource?**

The main difference between an internal resource and a partner resource is the company for whom each works. While the internal resource is an employee or contingent worker of the deploying company, the partner resource is an employee of the partner company.

The methodology used to create resources of these two types is also different. While the partner administrator or channel manager creates a new partner resource through the Oracle Fusion Partner Management applications, internal

resources are added using the Manage Users, Hire Employee, or Import Person and Organization task.

Another difference between partner resources and internal resources is that partner resources cannot access the Resource Directory while internal resources can.

### **Can I create an employee or contingent worker resource?**

No. You can only identify existing employees and contingent workers as resources in the Manage Resources task, but you cannot create a new employee or contingent worker in the Manage Resources task.

You can create an employee or contingent worker using Manage Users task, Hire Employee task, or Import Person and Organization task.

### **Can I create a partner member resource?**

No. Only partner administrators in the partner company or designated managers and administrators of the deploying company can create external partner member resources in the Partner Center.

### **What's a resource team?**

A resource team is a group of resources formed to work on work objects. A resource team may comprise resource organizations, resources, or both. A resource team cannot be hierarchically structured and is not intended to implement an organization structure. You can also use resource teams as a quick reference to groups of related resources that you can quickly assign work objects to.

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#### **Note**

Members of teams can either be reassigned separately, or entire teams can be assigned to other tasks as required.

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## **Define Resource Organization Information**

### **Resource Organizations and Organization Usage: Explained**

You can assign organization usage information to resource organizations to classify them based on how they can be used. For instance, resource organizations engaged in sales activities can be assigned the Sales Organization

usage. This enables you to sort organizations based on their usage, simplifying your task of working with them.

## Resource Organization Hierarchy Versioning: Explained

As organizations evolve, you may need to make changes to the existing organization hierarchy. Create organization hierarchies to capture these changes without impacting active hierarchies.

Depending on the urgency and nature of the changes within the deploying company, organization hierarchy changes can either be immediate or planned.

### Implementing Immediate Resource Organization Hierarchy Changes

In case of immediate changes in the organization hierarchy, either make changes directly to the hierarchy or create a new version of the existing hierarchy and set it to become active when the new organization structure needs takes effect.

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#### Note

Changes made to existing hierarchies are saved automatically and updated immediately.

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### Implementing Planned Resource Organization Hierarchy Changes

Create a new version of the active hierarchy and specify the date on which the new version needs to become active. Once the new version is saved, you can make and save the changes needed. Ensure that you have made all the changes needed to the new version before the date on which the new version needs to become active.

## Define Resource Role Information

### Define Resource Roles: Explained

Defining resource roles involves defining and configuring the roles that a resource plays as an individual or within a resource organization or resource team in the deploying company. This requires you to specify who a resource is within the enterprise and what specific role the resource performs within the context of an organization or team.

You can assign defined roles to resources directly or to resources within an organization or team context. This action simplifies the task of individually assigning complex roles to resources within the organization.

You can also set several flags while defining roles. Use these flags along with the organization hierarchy information to define the reporting hierarchy of

resources. Use the Manager flag to tag a role as a supervisor role. Similarly, attach a Member tag to a role to make it a subordinate role in the hierarchy. Tag roles as Administrator or Lead to indicate the roles that the resource roles have within the hierarchy. Additionally, you can use these flags along with the organization hierarchy information to maintain manager-to-manager relationships within the organization.

### **Assigning Resource Role Types**

Resource role types organize roles into logical groups. This simplifies role assignment and assignment tracking. For example, the Partner resource role type defines a set of partner-specific roles such as partner sales representative and partner sales manager. Use the Partner resource role type to determine the roles that are appropriate for partner members. Similarly, use the Sales resource role type and the Marketing resource role type to categorize the appropriate sales and marketing roles for internal employees or contingent worker resources.

## **Provisioning Security Roles: Explained**

Security role provisioning is the process of automating the provisioning and de-provisioning of security roles based on resource role assignment to resources. Once security roles are provisioned to resources, they can access the tasks and data enabled for the security role.

### **Difference between Resource Roles and Security Roles**

Resource roles indicate who a person is to the deploying company. As such, resource roles are used for filtering resources and for generating reporting hierarchies in addition to being used to define security policies. A key difference between a security role and resource role is that a resource role may be assigned to a resource without a user account, while a security role can only be provisioned to a resource who has a user account. So while in some cases the resource role may be defined at the same granularity as the security role and used to automate security role provisioning, the resource role concept remains separate from security roles.

## **Job-to-Role Mapping: Explained**

In the Manage Resource Roles task, you can establish job mapping for a resource role. Job-to-resource-role mapping enables you to associate HCM jobs with specific resource roles. This mapping simplifies the task of assigning resource roles to new employees or contingent workers, resulting in time and costs efficiency.

For example, suppose a new employee joins the IT department as a data quality manager. If the new employee's job is already mapped to a resource role like Data Steward Manager, the resource role is automatically assigned when the

employee is identified as a resource in the system. This enables you to place new employees faster in organizational and reporting hierarchies. If security roles are also associated with the resource role, then the new employee's access privileges are also granted automatically.

## Common CRM Configuration: Define Sales Catalogs

### Define Sales Catalogs

#### Functions and Miscellaneous Actions: Explained

You can set various options to customize the runtime instance of your product catalog.

The Functions and Miscellaneous tabs have several built-in features and options for you to choose from.

#### Functions

Select certain functions and specify how they should run depending on your processes.

Name	Description	Value	Description
Availability Engine	Determines the availability of a product in stock.	Do not run	Do not call the availability service.
		Quick availability	Show whether the product is available or out of stock
		Detail availability	Show the number of quantity available. Example 25 in stock.
Eligibility Engine	Determines the eligibility of a product or product group for a customer or a geographical area.	Do not run	Do not call the eligibility service.
		Run and hide	Call the eligibility service but hide the ineligible products, product groups and promotions.
		Run and sShow	Call the eligibility service and show the ineligible products, product groups and promotions with the appropriate message.
Pricing Engine	Determines the price for a product.	Do not run	Do not call the pricing service.

		Complex	Show the List Price, Your Price, Discount, and so on.
		Simple	Show the List Price only.
Territory Engine	Determines the products in a territory.	Do not run	Do not check for territory information.
		Enforce territory	Always show the products and product groups that are part of the territory.
		Display user choices	Provides the user with the choice to toggle between all product or product groups and the ones that belongs to the territory only.

### Miscellaneous Actions

Set preferences such as button label, sort by text, number of products per page, and so on.

Name	Description
Add item button label	The selected value is shown next to the product in the runtime interface.
Add category button label	The selected value is shown next to the catalog or category in the runtime interface.
Add category enabled flag	Allows buttons to be shown next to the catalog or categories.
Records per page	Number of records to be displayed per page.
Sort by format text	Sort format of the entire label that you want displayed in the runtime interface. The default pattern is {ATTR}: {SORT_ORDER}. Example: Name: A to Z.
Sort by product label prefix	Sort format of the prefix label that you want displayed. Example: If the default is Name: A to Z, you can select an alternate label for Name. It could be Item: A to Z.
Sort by sequence product ascending label	Sort format of the ascending suffix label that you want displayed. Example: If the default is Name: A to Z, you can select an alternate for A to Z. It could be Name: Ascending.
Sort by sequence product descending label	Sort format of the descending suffix label that you want displayed. Example: If the default is Name: Z to A, you can select an alternate for Z to A. It could be Name: Descending.
Sort by sequence ascending first flag	Select Yes to display ascending labels first in the Sort By LOV.
Show immediate child products only	Shows immediate products of a given category disregarding the standard behavior of showing all products (including child categories) if narrow by is defined on the category.

Image server	Identifies the source of images for products and product groups.
Image server alternate path	Identifies an alternate image source location (URL)
Enable transactional attribute	Allows transactional attributes to show up in product detail page. Transactional attributes are attributes that can be selected such as color and size of shirt.
Hidden category optional attribute list	You can specify the attributes you would like to hide from the category UI here. This could be a comma separated list of attributes that needs to be hidden from the category list page.
Hidden product optional attribute list	You can specify the attributes you would like to hide from the product UI here. This could be a comma separated list of attributes that needs to be hidden from the product pages.
Hide quantity	Set this to Yes, to hide the quantity field shown in the product page.
Hide unit of measure	Set this to Yes, to hide the unit of measure field shown in the product detail page.

## Change Display Options for Product Group Categories: Worked Example

Megan and the marketing team notice that when they browse the ComfyGooseCatalog, availability information is shown against each product. Since they have no visibility around the Loveseats product, the marketing team suggests to hide the availability information for the Loveseats category alone. Megan remembers from the training that Fusion Sales Catalog provides the ability to override the default behavior.

Megan recalls that she has to make this change from the Display Options for the Loveseats catalog.

### Change the Display Options

1. Select the catalog from the Product Group Administration page and lock it.  
Megan chooses the Loveseats catalog.
2. Create a new entry in the Display Options tab.  
Megan creates a record and names it Hide Availability.
3. From the Applies To subtab, select the usage that this display option must be applicable to.  
Megan selects the Base usage.
4. From the Functions tab, select the Availability Engine Code function and assign Do Not Run as its value.

5. Save and publish the ComfyGooseCatalog.

Megan validates the effect of this change at runtime.

## Display Options: Explained

Use the display options to control various aspects of the published product group.

### Modifying Product Group Information

You can make small but significant changes to a product group from these tabs. The changes here override default settings.

- Applies To

Select the usage that this product group is applicable to. Usage defines the department or function within your organization for which this catalog is created.

Apart from usage, you can also select the mode within the usage. Mode defines the department or function within your organization that uses the same catalog but with minor changes from other consumers.

- Narrow By

Select Narrow By attributes and their appearance. These attributes appear as filters to narrow searches at runtime.

- Template

Select templates for category, product list, and so on.

- Functions

Define the changes to specific settings in certain functions such as pricing and eligibility.

- Miscellaneous

Change basic settings for the product group such as button label, number of items per page, invocation of the configurator, and so on.

## Creating a Sales Catalog: Worked Example

This example demonstrates how to create a sales catalog. In this example, ComfyGoose Inc is a state of the art outfit in the business of selling chairs and sofas. As part of their expansion plans, they recently bought Oracle Fusion CRM and are uptaking the best business practices and all the functionality it brings.

Megan works in the product marketing department and is excited about the sales catalog and the ease with which she can create products and catalogs. She gathers information about the categories to be created and the products that need to be associated to each category. She is familiar with the layouts and the navigation paradigm in the application.

As a first step, Megan decides to create a sales catalog.

## Creating a Sales Catalog

1. Log in to the application and select the Product Group Administration tab.
2. Click **Create** from the Product Groups pane.
3. Enter data in the relevant fields.

Megan enters the following details for her catalog.

Field	Sample Data
Name	ComfyGooseCatalog
Display	Comfy Goose Catalog
Description	Contains ergonomic chairs for your home or office needs, chairs for businesses such as call centers and offices; at attractive prices.
Root Catalog	Select to make this a root catalog. Only root catalogs can be added to a usage in Product Group Usage Administration.

4. Associate an image that should go with the catalog from the Details tab.
5. Add categories to this product catalog from the Subgroups tab.

Megan creates the following subgroups for the ComfyGoose Catalog product group.

Field	Sample Data
Subgroup Name	<ul style="list-style-type: none"> <li>• Chairs</li> <li>• Sofas</li> <li>• Medical Chairs</li> <li>• Sports Chairs</li> <li>• Chairs and Stools</li> </ul>

6. Add further categories to a subgroup, if required. To do so, change the view of the product group from List to Tree view from the Product Groups pane. Select the category within which you want a subgroup.

Megan creates further categories within some of the subgroups.

Parent Subgroup	Sample Data
Chairs	<ul style="list-style-type: none"> <li>• Heavy Duty/Call Center Chairs</li> <li>• Ergonomic Chairs</li> <li>• Leather Chairs</li> <li>• Event Chairs</li> </ul>
Sofas	Sofas and Loveseats
Sofas and Loveseats	<ul style="list-style-type: none"> <li>• Leather Sofas</li> <li>• Reception and Lounge Sofas</li> <li>• Loveseats</li> </ul>

7. Add products from the Products tab to the respective subgroups that you just created
8. Click **Publish** to publish the product hierarchy that you just created

A published catalog is available for use by different departments which is done via Usage Administration

9. To associate a published catalog with a particular usage, click the **Product Group Usage Administration** link
10. Select the usage, click the Product Groups subtab. Search and add the product group you just created

Megan selects the Base usage and adds ComfyGooseCatalog to this usage.

## Reusing a Sales Catalog: Worked Example

This example demonstrates how you can reuse a sales catalog. In the scenario used in this example, ComfyGoose Inc is a state of the art outfit in the business of selling chairs and sofas. As part of their expansion plans, they recently bought Oracle Fusion CRM and are uptaking the best business practices and all the functionality it brings. Megan works in the product marketing department.

Megan gets a call from another division of the company, after a few months of deploying the ComfyGooseCatalog. They have heard of the new catalog that she helped build for the marketing team and enquire if they can have a similar subset for their division. They want to leverage as much as possible having a consistent look-and-feel.

An application developer must create an application and should be able to consume the sales catalog task flows to achieve this example. This task is similar to what the Sales module has done to consume the task flows provided by the sales catalog team.

Megan gathers the necessary information and identifies that this division primarily needs what is in the Chair category of the ComfyGooseCatalog. She is

very excited because she knows that she can simply reuse the Chairs category. In the past, she would have had to create another catalog repeating the same data, a maintenance overhead.

## Reusing an Existing Catalog for Another Department

1. Navigate to the Product Group Usage Administration page
2. Create a new usage

Megan creates the Call Center Division usage

3. Click the Product Groups subtab for the usage that you just created

You can choose only product groups that are catalogs by themselves here. In other words, the catalog must be a root catalog.

Megan realizes that the Chairs catalog that she wants to reuse is a subgroup of the ComfyGooseCatalog. To make it a root catalog, she follows these steps:

- a. Navigate to the Product Group Administration page
  - b. Select the product group Chairs from the Product Group pane
  - c. From the Details tab, select Root Catalog
  - d. Save and publish the catalog.
4. Add the product group to the new usage in the Product Group Usage Administration page.

The Chairs catalog is now available for the Call Center Division.

## Enabling Filtering by Attributes: Worked Example

This example demonstrates how to enable filtering by attributes. In the scenario used in this example, ComfyGoose Inc is a state of the art outfit in the business of selling chairs and sofas. As part of their expansion plans, they recently bought Oracle Fusion CRM and are uptaking the best business practices and all the functionality it brings. Megan works in the product marketing department. She has created the ComfyGooseCatalog and tried changing some usage attributes.

Megan now reviews the ComfyGooseCatalog with the team and decides that it will be nice to provide the user with few narrow by filters. After reviewing the definition of products associated to the Chairs category and its subcategories, it is decided that attributes Color and Material can be used for filtering.

The attributes must already be registered in the Product Group Attribute Administration page. These attributes must be present and associated in the Item Master.

## Associating Attributes for a Category

1. From the Product Group Administration page, select the category to add the attributes for and lock it.

Megan selects the Chairs category.

2. From the Filter Attributes tab, click **New** to select the attribute that you wish to associate to Chairs product group. Select the Advanced Search, Narrow By and Sort flags for the attribute. By selecting these flags, this attribute will get displayed in those regions.

---

**Note**

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The attribute is already registered in the Product Group Attribute Administration page.

Megan selects the Color and Material attributes.

3. Create values for the selected attributes from the Attribute Values region below.

Megan creates Blue, Pink and Black as the values for the chair color. She also creates values for the chair material.

4. Megan saves the changes and publishes the Chairs product group.

Megan validated the changes in the graphical catalog. She can see the attributes that she created and their values in the Advanced Search, Narrow By and Sort options of the catalog.

## FAQs for Define Sales Catalogs

### How can I customize button labels in the catalog?

You can add custom labels for your catalog by specifying them in the Miscellaneous tab of Display Options. For example, you can change the default Add to Cart label and can select a different label such as Add to Shopping Cart. You can add an additional value for the button label from the Manage Product Group Lookups page from the Setup and Maintenance Overview page. You can enter a new value using the lookup Add Item Label Values. Once done, you can navigate to the product group administration to either override the button label for the entire catalog via the usage functions or to a specific product group from the display options tab.

Apart from customizing button labels, you can also set the number of items to display per page from the Miscellaneous tab.

### What's the difference between rollup and sales catalog hierarchies?

A rollup catalog does not have the same product appearing multiple times within its hierarchy. The primary purpose of a rollup catalog is to create a hierarchy more tailored to forecasting purposes where a particular product appears only once in the entire hierarchy.

A sales catalog can have the same product appearing multiple times within its hierarchy. For example, the product Toys can be part of the Children category as well as the Electronics category within the same catalog.

---

**Note**

The Allow Duplicate flag distinguishes between a rollup catalog and a sales catalog. By default, the flag is selected making it a sales catalog. The Allow Duplicate flag is in the Details tab of the Product Group Administration page.

---

**Why did some of the products in my published catalog disappear?**

Products in your catalog are active for a specified period. Once the period expires, the product becomes inactive and does not appear as part of the published catalog. Activate the products from the Products tab of the Product Group Administration page.

## Manage Product Groups

### Eligibility Rules for a Product Group: Explained

An eligibility rule can be a physical eligibility rule or a marketing eligibility rule

Some points to remember when you create an eligibility rule:

- An eligibility rule can determine one of the two kinds of eligibility for a product group, physical or marketing. They cannot be combined.
- A rule can be of two types: Available and Not Available. If contradictory rules are defined for the same product group, the Not Available rule will prevail.
- All children of a product group inherit rules from the parent product group.
- Eligibility rules set at the product level have precedence over the rules set at the product group level.

**Physical Eligibility**

When you create a physical eligibility rule, select attributes from these: Country, State or Province, City and Postal Code.

**Marketing Eligibility**

When you create a marketing eligibility rule, select a value for Customer Type.

## Using a New Template in a Catalog: Worked Example

This example demonstrates how to use a new template in a catalog. Megan informs the marketing team that the IT department has created a new template that gives a cool web 2.0 feeling and asks their permission to try it out. She informs them that it gives a carousel effect which is quite common while browsing songs, DVDs, and so on. The marketing team agrees to give it a try.

Using Fusion JDeveloper, application developers have to create a task flow using the Fusion ADF component and all necessary VOs to support the task flow. The task flow must be registered in the template administration.

Megan decides to use the template ComfyGoose Carousel template in the ComfyGoose Catalog's browsing categories.

### Using a New Template in a Catalog

1. On the Product Administration page, Megan searches for the ComfyGooseCatalog and locks it
2. In the Display Options tab for the selected catalog, create a new record  
Megan creates a record and names it Carousel.
3. From the Applies To subtab, select the usage that this change should be applicable to  
Megan selects the Base usage.
4. From the Templates subtab, create a record and select the appropriate template type and the new template  
Megan selects the Category List Template as the type and the ComfyGoose Carousel template as the template.
5. Save your changes and publish the catalog.

Megan verifies the change in the catalog at runtime. The marketing team loves this cool effect and agrees to adopt it for the final catalog roll out.

## Changing Usage Attributes for an Application: Worked Example

This example demonstrates how you can modify attributes for an application's usage. In this scenario, the Call Center division only deals with call centers across the world, they have not seen if any product they have sold is not applicable to call center companies. Therefore, they decide to switch off the eligibility and availability messages that show up in their side of the catalog.

Megan knows that this is a fairly simple task because she can do these settings from the Product Group Usage Administration page.

## Modifying Attributes for an Application's Usage

1. Navigate to the Product Group Usage Administration page, and select the usage to make changes.

Megan selects the Call Center usage.

2. From the Functions subtab, select the following:

Name	Value
Availability Engine	Do not run
Eligibility Engine	Do not run

3. Save your changes and validate the effect in the catalog at runtime.

Megan accesses the catalog and finds that the availability and eligibility messages do not appear anymore for the Call Center division's catalog.

## FAQs for Product Groups

### What's a related group?

Related groups shows the relationship between two different product groups. For example, a group that contains extended warranty products is related to a group that contains laptops. There are various relations types supported such as revenue, service and so on. This relationship is used in the other applications.

### What's eligibility ?

Eligibility is the condition of being qualified or being entitled for a purchase or enrollment.

There are two types of eligibility.

- Physical eligibility: Determines whether a service is available in a given area.
- Marketing eligibility: Determines whether a company is willing to sell a product, service, or promotion to a customer.

Some examples of eligibility are:

- Video Conferencing is available in California.
- Liquor is not available to minors.
- ESPN pay-per-view Requires HD Package

## **How can I change the labels for filter attributes at runtime?**

In the Filter Attributes tab of the Product Group page, change the value for the Display of the attribute. The attribute can have an internal name but the name displayed at runtime can be more meaningful and customer friendly.

For example, if the attribute name is Laptop Color, you can change the display to Available Colors. This will display in the narrow by or advanced search options at runtime.

## **Why can't I modify a product group?**

To modify a product group, you must first lock it. Click **Lock** in the Product Group page. If the product group is locked by another user, the **Lock** button is not visible and the **Locked** flag is enabled in the Details tab.

## **How can I associate promotions to a product group?**

There may be several promotions running at any given time. You can associate active promotions to a product group from the Promotions tab. Coupons are a part of promotions and are added to the product group along with the promotion. You can also view the promotion's effective period.

## **What's the difference between the administration and published product group versions?**

A product group can have two versions, Administration and Published. The Published version is visible to the end user in the graphical sales catalog. The administrator must make any changes to the product group in the administration version.

After publishing the administration version, the changes are made available to the published version and to the consuming applications

## **When can I use product group mapping?**

Use product group mapping in the following situations:

If a product group is reused, find it in the target hierarchy.

Identify the right product group in the target hierarchy when the source product group is not recognized.

Do a reverse mapping by passing the target product group to get the source product group.

### **How can I set exceptions for particular usages?**

You can set exceptions for a usage from the Modes tab of the Product Group Usage Administration page. Exceptions can be made when you need minor modifications for different departments in your organizations, for the same usage. The following modes are available: Lead Management, Campaign Management, Opportunity Management, Territory Management, Opportunity Landscape and Sales Prediction.

### **How can I know if my catalog is used by other catalogs?**

You can get this information from the Product Groups Shared With region in the Product Groups pane. By default, all product groups are shared.



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# Common CRM Configuration: Define File-Based Data Import

## Define File-Based Data Import

### File-Based Import Objects: Explained

Import objects represent the application and attribute information for business objects that can be imported using external source files.

This topic describes the following:

- Import object management options
- Custom objects

#### Import Object Management Options

A single import object can have multiple associated components that are considered objects by themselves. An object and associated objects that can be imported within the same source file are grouped together within the application module class.

---

#### Note

Each object includes the Import Activity object (MktImpJobs1). The Import Activity object is a required component of the application module but is not mapped to a source file. All values for this object are derived from the Import Activity definition. Consequently, do not update the **Map**, **Required**, and **Default Value** settings for the Import Activity object.

---

The following table includes information about the import object:

Option	Description
Attributes	A view-only listing of object attributes that represent each column in the interface table for the object.
Length	A view-only listing of widths for the columns in the interface tables. If the source file values for the attribute have more characters than the attribute length, the source file row will not be imported.

Default Value	Optionally, specify an attribute value to use if a value is not available from the source file or Import Activity constant value.
Map	Enable the list of attributes that can be mapped to a source file or constant value in the Import Mapping and Import Activity Map Fields step.
Required	Specify the list of attributes that must be mapped to source file columns. Consequently, if you have selected an attribute as required, you must also enable the <b>Map</b> option for that attribute.  When mapping the external source file, the required target attribute defined for the object are displayed with an asterisk.

### Custom Objects

To use the file-based import feature for custom objects, you must first generate the artifacts required for import. You generate these required artifacts within Oracle Fusion CRM Application Composer, after making your object model extensions.

## File-Based Import Mapping: Explained

Import mapping enables you to predefine a mapping between the columns provided in a source file and the attributes pertaining to the objects being imported. Once you create a mapping, it can be reused in the Import Activity definition.

This topic contains the following sections:

- Import options
- Source file options
- Target options

### Import Options

The following attributes pertain to the import mapping.

Attribute	Description
Object	The business object to be imported.
Name	The name that identifies the mapping in the Import Mapping and Import Activity UIs. If the mapping was initially created while mapping fields directly in the Import Activity user interface and automatically saved without providing a user-defined mapping name, the mapping name is derived from the Import Activity name and date.
Decimal Separator	The format of the fractional portion of numerical values in columns mapped to attributes with a decimal attribute type.

Date Format	The format of values in columns mapped to attributes with a date attribute type.
Timestamp Format	The format of values in columns mapped to attributes with a time stamp attribute type.
Lock	If selected, prevents any user, other than the creator of the mapping, from editing the mapping.

### Source File Options

Map each column that the source file is expected to contain with a specific attribute.

The following table describes the details pertaining to columns provided in the source file:

Source Column	Description
Sequence	The sequence number in which the columns are expected to be provided in the source file. Two rows cannot have the same sequence number.
Column Name	The column name expected in the source file if a header row is included, or more generic values such as Column A, Column B, and so on, if the header row is not included for Text file types.  The tagging structure is represented for XML file types.
Column Width	Use when the delimiter value is fixed width for Text file types only.
Ignore	Ignore the source file column to exclude the data from being imported.
Required	If selected, a value must exist in the source file or the row will not be imported.

### Target Options

The following table describes the details pertaining to corresponding attributes in the target application table:

Target Attributes	Description
Object	The group of import objects that represent the components of the business object being imported.
Attribute	The attribute name that represents the corresponding interface table column for the object.
Duplicate Validation	If selected, the attribute, along with other selected attributes, determines what constitutes a duplicate object when comparing objects in the interface tables and existing objects in the target application tables. For example, to validate the uniqueness of an object in the target application tables by the combination of an object's name and date, select <b>Duplicate Validation</b> for both attributes in the mapping.

# Files, Import Objects, Mapping, and Import Activity Components: How They Work Together

File-based import supports the import of data from an external text or xml file to interface tables and then from interface tables to target application tables.

## Overview of File-Based Data Import

File-based import includes the following:

- Source files with import data
- Import objects with available import attributes
- Mappings between source files and interface table columns
- Import Activities to define import options, a processing schedule, and monitor progress

## Source Files

External data can be obtained in various ways and formatted in a text or xml file. The source file data is mapped to interface table columns using a Mapping. The source file is identified on an Import Activity, along with other import processing details. The file processing component of the file-based data import consists of reading the source file, parsing the data, and inserting the data into the appropriate interface tables.

## Objects

Import Objects are defined where interface tables exist and external files can be used to import data into the interface tables. Import Object for Oracle objects that support file-based import are predefined. The list of objects is displayed based on the data security privileges for your role. Individual object attributes represent the interface table columns and are used to map source file data or constant values in Mappings and Import Activity definitions. Use the Import Object definition to manage the display of attributes that can be mapped, to indicate required mapping, and to set site level default values as needed.

## Mappings

Import mapping enables you to predefine a mapping between the columns provided in a source file and the attributes pertaining to the objects being imported. Once you create a mapping, it can be reused in the Import Activity definition.

## Manage Import Activities

An Import Activity definition provides the instructions for the import processing. It includes the source file or file location and mapping, plus import

processing options and schedule. You can monitor the progress of the Import Activity processing and view completion reports for both successful records and errors.

## File-Based Import Processing: How it Works

The file-based data import process includes processing the source file data and inserting it into the interface tables, moving the interface table data into the destination application tables, and then processing the attachments for the imported objects. Processing factors are subject to the settings defined for the Import Activity, Mapping, and Import Object. You can monitor the processing steps and view process reports for each Import Activity.

This topic describes the following:

- Inserting Data in the Interface Tables
- Interface Table Data Validation and Error Counts
- Interface Table to Destination Application Table Processing
- Importing Attachments
- Viewing Import Results

### Inserting Data in the Interface Tables

Data exists in various sources and in various formats. The file import processing starts with reading the source data, parsing the data, and inserting into the appropriate interface tables. The source of the data comes from the following:

- Source file values mapped to target object attributes in the Import Activity.
- Constant values defined for target object attributes in the Import Activity.
- Default values defined for target object attributes in the Import Object.

### Interface Table Data Validation and Error Counts

The data is initially validated against the predefined Import Mapping and the Import Object settings as the interface tables are being populated by the initial file import process. The interface table data is validated again before importing into the destination application tables.

- Validation includes:
  - Missing required values
  - Values that exceed the attribute length
  - Invalid values

- Duplicates to existing records in the destination application tables based on the combination of attributes selected for duplicate validation in the predefined Import Mapping.

---

**Note**

For the Lead import object, the duplicate checking is only done for existing leads created within the look back days setting of the Import Activity.

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- Duplicates to existing records in the destination application tables for Customer Data Management objects based on Matching Configurations.

- Errors

Most validation issues are recorded as errors, with the exception of Customer Data Management duplicates found during the Matching Configuration process. In this case, matched records are only considered as errors if:

- Customer Management Duplicates option is set to **Do Not Import** for the Import Activity and
- The main object of the Import Activity is a consumer, customer, or legal entity object

- Allowable Error Count Threshold

The validation of the interface table occurs before any records are imported into the destination application tables. Once the validation process has completed, the count of records with errors is compared to the Allowable Error Count Threshold value specified for the Import Activity. A count above the threshold will stop the import process for all records. If the count is below the threshold, records without errors will import. In either case, records with errors will be reported in the Error and Exception files.

### **Interface Table to Destination Application Table Processing**

The import process orchestrates the import for each of the component objects that make up the overall main objects of the Import Activity.

### **Importing Attachments**

Once the objects have imported successfully, the attachments are processed. The import process matches the source file attachment name to the file name included in the compressed file entered on the Import Activity. The attachment file is imported into Universal Content Manager and then associated as an attachment to the imported object.

### **Viewing Import Results**

You can monitor all file-based Import Activities that are currently scheduled to run, have completed successfully, or failed with errors. For each Import Activity, you can view the details pertaining to each underlying process. Once an Import

Activity process has completed, the following processing reports are added as attachments to the process:

- Log file. Includes the records that were successfully imported plus the unique destination application table identifiers for the objects.
- Exception file. Includes the records that were not imported plus a reference to an error for each record that failed validation.
- Error file. Includes all the errors for each record that failed validation.

## Importing Opportunities: Explained

You can create new opportunities or update existing opportunities by importing data through interface tables. To populate the interface tables you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing opportunities:

- File-based import
- Import object entities, interface tables, and destination tables

### File-Based Import

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the opportunity import object, create source file mappings, and schedule the import activities.

---

#### Note

If using a text file, one row of data in your source file represents a single opportunity. Consequently, if you have a one-to-many scenario for some of the opportunity's details, you must repeat each set of data in the source file on the same row. For example, if the opportunities in your source file typically include up to two contacts, create a set of data for contact one, and an additional set of data for contact two to include on the same row as your opportunity.

---

You can use the same source file to import both extensible custom attributes and the standard opportunity object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

Opportunity notes, interactions, appointments, and tasks are imported independently using separate source files and import activities for each. Include

the data that will identify the associated opportunity in the notes, interactions, appointments, and tasks source files.

---

**Note**

To obtain unique IDs for the opportunities you have just imported, you can view the log file of successful records in the opportunity's import activity by navigating to **Setup and Maintenance** and selecting the **Manage File Import Activities** task. When the opportunity import activity is complete, select the **Schedule Status** link to access the log file containing the opportunity IDs.

---

You can import attachments to your import object by including the file names in your opportunity source file and selecting the files when defining your import activity.

**Import Object Entities, Interface Tables, and Destination Tables**

The opportunity import object consists of entities that form the opportunity. Since interface tables are tied to import object entities and the opportunity object consists of many entities, there are multiple interface tables included in importing opportunities. You map your source file data to import entity attributes that correspond to the interface table columns. The import activity process will populate the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

---

**Note**

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

The following table lists the object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
Opportunity	MOO_IMP_OPTY	MOO_OPTY	Opportunity
OpportunityCompetitor	MOO_IMP_OPTY_COMP	MOO_OPTY_COMPETIT	Opportunity competitor
OpportunityContact	MOO_IMP_OPTY_CON	MOO_OPTY_CON	Opportunity contact
OpportunityLead	MOO_IMP_OPTY_LEADS	MOO_OPTY_LEADS	Opportunity lead
OpportunityReference	MOO_IMP_OPTY_REFER	MOO_OPTY_REFERENC	Opportunity reference
OpportunityResource	MOO_IMP_OPTY_RESOU	MOO_OPTY_RESOURCE	Opportunity resource
OpportunityResponse	MOO_IMP_OPTY_RESP	MOO_OPTY_RESPONSES	Opportunity response
OpportunityRevenue	MOO_IMP_REVN	MOO_REVN	Opportunity revenue
OpportunityRevenueLine	MOO_IMP_REVN_LINE	MOO_REVN	Opportunity revenue line set

OpportunityRevenuePartn	MOO_IMP_REVN_PARTN	MOO_REVN_PARTNER	Opportunity revenue partner
OpportunitySource	MOO_IMP_OPTY_SRC	MOO_OPTY_SRC	Opportunity source

The following table lists the note, interaction, appointment, and task object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
NoteImport NoteImportForQuery	ZMM_IMP_NOTES	ZMM_NOTES	Opportunity note
InteractionAssociationImp InteractionImport InteractionParticipantImp	ZMM_IMP_INT_ASSOCIAT ZMM_IMP_INT_INTERA ZMM_IMP_INT_PARTICI	ZMM_INTER_ASSOCIAT ZMM_INTER_INTERACT ZMM_INTER_PARTICIPA	Opportunity interaction
ActivityAssigneeImport ActivityAssociationImport ActivityContactImport AppointmentImport NoteImport	ZMM_IMP_ACT_ASSIGN ZMM_IMP_ACT_ASSOCI ZMM_IMP_ACT_CONTA ZMM_IMP_ACTIVITIES ZMM_IMP_NOTES	ZMM_ACT_ASSIGNMEN ZMM_ACT_ASSOCIATIC ZMM_ACT_CONTACTS ZMM_ACTIVITIES ZMM_NOTES	Opportunity appointment and appointment notes
TaskAssigneeImport TaskContactImport TaskImport NoteImport	ZMM_IMP_WF_ASSIGNNE ZMM_IMP_TASK_CONTA ZMM_IMP_WF_TASK ZMM_IMP_NOTES	WF_ASSIGNNEES ZMM_ACT_CONTACTS CRM_FUSION_SOAINFR ZMM_NOTES	Opportunity task and opportunity task notes

## Importing Notes: Explained

You can create new notes by importing data through interface tables. To populate the interface table, you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entity, interface table, and destination table will help you prepare your import data.

Consider the following when importing notes:

- File-based import
- Import object entity, interface table, and destination table

### File-Based Import

The file-based import process reads the data included in your XML or text file, populates the interface table, and imports the data into the application

destination table. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the note import object, create source file mappings, and schedule the import activities.

You can use the same source file to import both extensible custom attributes and the standard note object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

You can import attachments to your import object by including the file names in your note source file and selecting the files when defining your import activity.

### Import Object Entity, Interface Table, and Destination Table

The note import object consists of one entity that forms the note. Since interface tables are tied to import object entities, there is only one interface table for importing notes. You can map your source file data to the import entity attributes that correspond to the interface table columns. The import activity process populates the interface table based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

---

#### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

The following lists the object entity, tables, and resulting application object:

File-Based Import Entity	Interface Table	Destination Table	Application Object
NoteImport	ZMM_IMP_NOTES	ZMM_NOTES	Note

## Importing Tasks: Explained

You can create new tasks by importing data through interface tables. To populate the interface table you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing tasks:

- File-based import
- Import object entities, interface tables, and destination tables

## File-Based Import

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the task import object, create source file mappings, and schedule the import activities.

---

### Note

If using a text file, one row of data in your source file represents a single task. Consequently, if you have a one-to-many scenario for some of the task's details, you must repeat each set of data in the source file on the same row. For example, if the tasks in your source file typically include up to two contacts, create a set of data for contact one and an additional set of data for contact two to include on the same row as your task. The file-based import process supports up to ten sets of data per entity per row in the text file.

---

You can use the same source file to import both extensible custom attributes and the standard task object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

You can import attachments to your import object by including the file names in your task source file and selecting the files when defining your import activity.

### Import Object Entities, Interface Tables, and Destination Tables

The task import object consists of entities that form the task. Since interface tables are tied to import object entities and the task object consists of many entities, there are multiple interface tables included in importing tasks. You map your source file data to import entity attributes that correspond to the interface table columns. The import activity process populates the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

---

### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

The following table lists the object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
TaskImport	ZMM_IMP_WF_TASK	CRM_FUSION_SOAINFR	Task

TaskAssigneeImport	ZMM_IMP_WF_ASSIGNEE	WF_ASSIGNEES	Task Assignee
TaskContactImport	ZMM_IMP_TASK_CONTACT	ZMM_ACT_CONTACTS	Task Contact
NoteImport	ZMM_IMP_NOTES	ZMM_NOTES	Task Note

## Importing Interactions: Explained

You can create new interactions by importing data through interface tables. To populate the interface tables, you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing interactions:

- File-based import
- Import object entities, interface tables, and destination tables

### File-Based Import

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the interaction import object, create source file mappings, and schedule the import activities.

---

#### Note

If using a text file, one row of data in your source file represents a single interaction. Consequently, if you have a one-to-many scenario for some of the interaction's details, you must repeat each set of data in the source file on the same row. For example, if the interactions in your source file typically include up to two contacts, create a set of data for contact one and an additional set of data for contact two to include on the same row as your interaction. The file-based import process supports up to ten sets of data per entity per row in the text file.

---

You can use the same source file to import both extensible custom attributes and the standard interaction object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

### Import Object Entities, Interface Tables, and Destination Tables

The interaction import object consists of entities that form the interaction. Since interface tables are tied to import object entities and the interaction object consists of many entities, there are multiple interface tables included in

importing interactions. You can map your source file data to the import entity attributes that correspond to the interface table columns. The import activity process populates the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

---

**Note**

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

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The following table lists the object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
InteractionImport	ZMM_IMP_INT_INTERA	ZMM_INTER_INTERACT	Interaction
InteractionAssociationImp	ZMM_IMP_INT ASSOCL	ZMM_INTER_ASSOCIAT	Interaction associations
InteractionParticipantImp	ZMM_IMP_INT PARTICI	ZMM_INTER_PARTICIPA	Interaction resources and contacts

## Importing Appointments: Explained

You can create new appointments and update existing appointments by importing data through interface tables. To populate the interface table, you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing appointments:

- File-based import
- Import object entities, interface tables, and destination tables

### File-Based Import

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the appointment import object, create source file mappings, and schedule the import activities.

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**Note**

If using a text file, one row of data in your source file represents a single appointment. Consequently, if you have a one-to-many scenario for some of the appointment's details, you must repeat each set of data in the source file on the same row. For example, if the appointments in your source file typically include up to two contacts, create a set of data for contact one and an additional set of data for contact two to include on the same row as your appointment. The file-based import process supports up to ten sets of data per entity per row in the text file.

You can import attachments to your import object by including the file names in your appointment source file and selecting the files when defining your import activity.

### Import Object Entities, Interface Tables, and Destination Tables

The appointment import object consists of entities that form the appointment. Since interface tables are tied to import object entities and the appointment object consists of many entities, there are multiple interface tables included in importing appointments. You can map your source file data to the import entity attributes that correspond to the interface table columns. The import activity process populates the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

#### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

The following lists the appointment object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
AppointmentImport	ZMM_IMP_ACTIVITIES	ZMM_ACTIVITIES	Appointment
ActivityAssigneeImport	ZMM_IMP_ACT_ASSIGN	ZMM_ACT_ASSIGNMEN	Appointment participants
ActivityContactImport	ZMM_IMP_ACT_CONTA	ZMM_ACT_CONTACTS	Appointment contact
NoteImport	ZMM_IMP_NOTES	ZMM_NOTE	Appointment note

## Importing Promotions: Explained

You can create new promotions by importing data through interface tables. There are two options for populating the interface tables: using the tool of your

preference to load the data or an automated pull from a data file. If you plan to provide the data details in a source file, use the file-based import feature. If you will populate the interface tables directly, use scheduled processes to import the data. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing promotions:

- File-based import option
- Scheduled process import option
- Import object entities, interface tables, and destination tables

### File-Based Import Option

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the promotion import object, create source file mappings, and schedule the import activities.

---

#### Note

If using a text file, one row of data in your source file represents a single promotion. Consequently, if you have a one-to-many scenario for some of the promotion's details, you must repeat each set of data in the source file on the same row. For example, if the promotions in your source file typically include up to two coupons, create a set of data for coupon one and an additional set of data for coupon two to include on the same row as your promotion.

---

### Scheduled Process Import Option

Navigate to **Scheduled Processes**, after you have populated the interface tables, to schedule the import of data from the interface tables to the destination tables.

The following displays the process you can schedule to import promotions and related information:

Process Name	Process Display Name
BulkImportProcess_PROMOTION_LOAD_ALL	Import Promotions and Associated Coupons

### Import Object Entities, Interface Tables, and Destination Tables

The promotion import object consists of entities that form the promotion. Since interface tables are tied to import object entities and the promotion object consists of many entities, there are multiple interface tables included in importing promotions. If you are using file-based import, you can map your source file data to import entity attributes that correspond to the interface table columns. The import activity process will populate the interface tables based on the mapping and your source file. If using scheduled processes, populate the

tables directly using your preferred tool. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

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**Note**

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

---

The following table lists the object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
PromotionBulkImport	MOP_IMP_PROMOTION	MOP_PROMOTIONS_B MOP_PROMOTIONS_TL	Promotion
PromotionCouponBulkIm	MOP_IMP_PROMO_COU	MOP_PROMO_COUPON	Promotion Coupon

## Importing Product Groups: Explained

You can create new product groups by importing data through interface tables. To populate the interface table, you provide the data details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing product groups:

- File-based import
- Import object entities, interface tables, and destination tables

### File-Based Import Option

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the product group import object, create source file mappings, and schedule the import activities.

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**Note**

If using a text file, one row of data in your source file represents a single product group. Consequently, if you have a one-to-many scenario for some of the product group's details, you must repeat each set of data in the source file on the same row. For example, if the product groups in your source file typically include two

associated products, create a set of data for product one and an additional set of data for product two to include on the same row as your product group.

You can use the same source file to import both extensible custom attributes and the standard product group object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

### Import Object Entities, Interface Tables, and Destination Tables

The product group import object consists of entities that form the product group. Since interface tables are tied to import object entities and the product group object consists of many entities, there are multiple interface tables included in importing product groups. You map your source file data to import entity attributes that correspond to the interface table columns. The import activity process populates the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

#### Note

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

The following table lists the object entities, tables, and resulting application objects:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
ProductGroupBulkImport	QSC_IMP_PROD_GROU	QSC_PROD_GROUPS_B QSC_PROD_GROUPS_TL QSC_PROD_GRP_DETAI	Product group
ProductGroupItemBulkIm	QSC_IMP_PROD_GROU	QSC_PROD_GROUP_ITE	Product group products
ProductGroupRelationBul	QSC_IMP_PROD_GROU	QSC_PROD_GRP_REL_B QSC_PROD_GRP_REL_T	Related product groups

## Importing Marketing Budgets: Explained

You can create new or update existing marketing budgets by importing data through interface tables. To populate the interface table you provide the data

details in a source file and use the file-based import feature. Having a good understanding of the import entities, interface tables, and destination tables will help you prepare your import data.

Consider the following when importing marketing budgets:

- File-based import
- Import object entities, interface tables, and destination tables

### **File-Based Import**

The file-based import process reads the data included in your XML or text file, populates the interface tables, and imports the data into the application destination tables. The **File-Based Data Import Setup and Maintenance** task list includes the tasks needed to configure the marketing budget import object, create source file mappings, and schedule the import activities.

You can use the same source file to import both extensible custom attributes and the standard marketing budget object attributes. First, design your object model extensions in Oracle Fusion CRM Application Composer and generate the required artifacts to register your extensions and make them available for importing. When complete, the import object is updated with the extensible attributes, which can then be mapped to your source file data.

Marketing budget notes are imported independently using a separate source file and import activity. Include the data that will identify the associated budget in the note's source file.

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#### **Note**

To obtain unique IDs for the marketing budgets you have just imported, you can view the log file of successful records in the budget's import activity by navigating to **Setup and Maintenance** and selecting the **Manage File Import Activities** task. When the budget import activity is complete, select the **Schedule Status** link to access the log file containing the budget IDs.

---

You can import attachments to your import object by including the file names in your marketing budget source file and selecting the files when defining your import activity.

### **Import Object Entities, Interface Tables, and Destination Tables**

The marketing budget import object consists of one entity that forms the budget. Since interface tables are tied to import object entities, there is only one interface table for importing budgets. You map your source file data to import entity attributes that correspond to the interface table columns. The import activity process will populate the interface tables based on the mapping and your source file. If you need the unique IDs of existing application data for your import data, use the **Define Data Export Setup and Maintenance** task list to export the information.

---

#### **Note**

Spreadsheets containing detailed information about each interface table, including the import attributes, corresponding interface table columns, defaults, and validations, are available from the Oracle Enterprise Repository by searching on a specific interface table name or initiating a search using the **FusionApps: Interface Table** asset type.

The following table lists the object entity, tables, and resulting application object:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
ImportBudgets1	MKT_IMP_BDT_BUDGET	MKT_BDT_BUDGETS_B MKT_BDT_BUDGETS_TL	Marketing Budget

The following table lists the note object entity, tables, and resulting application object:

File-Based Import Entities	Interface Tables	Destination Tables	Application Object
NoteImport	ZMM_IMP_NOTES	ZMM_NOTES	Marketing budget note



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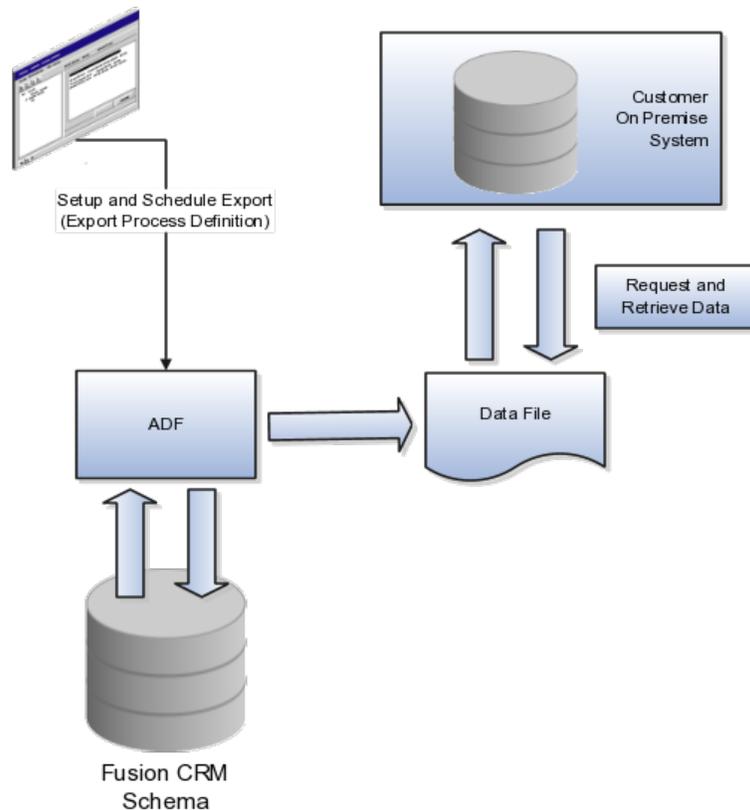
## Common CRM Configuration: Manage Bulk Data Export

### Using Data Export

#### Bulk Export: Overview

The Bulk Export application provides a mechanism to extract large volumes of data from Fusion CRM objects. These extracts can be the full set of records for an object or incremental extracts. For example, data extracted for a specific period of time, from the hosted CRM system to an on-premise database that resides behind a user's fire-wall. The system will create comma separated variable or tab delimited files with the extracted data, which will be available to users as attachments to the batch records that have been executed.

The following figure depicts the process of selecting data for export, scheduling and finally delivering the exported data file.



## Bulk Export Process Definition: Explained

This solution provides a mechanism to extract large volumes of data from Fusion CRM objects, both as extracts of a full set of records for an object as well as incremental extracts. The system will create comma or tab delimited files with the extracted data which will be available to users as attachments to the batch records that have been executed.

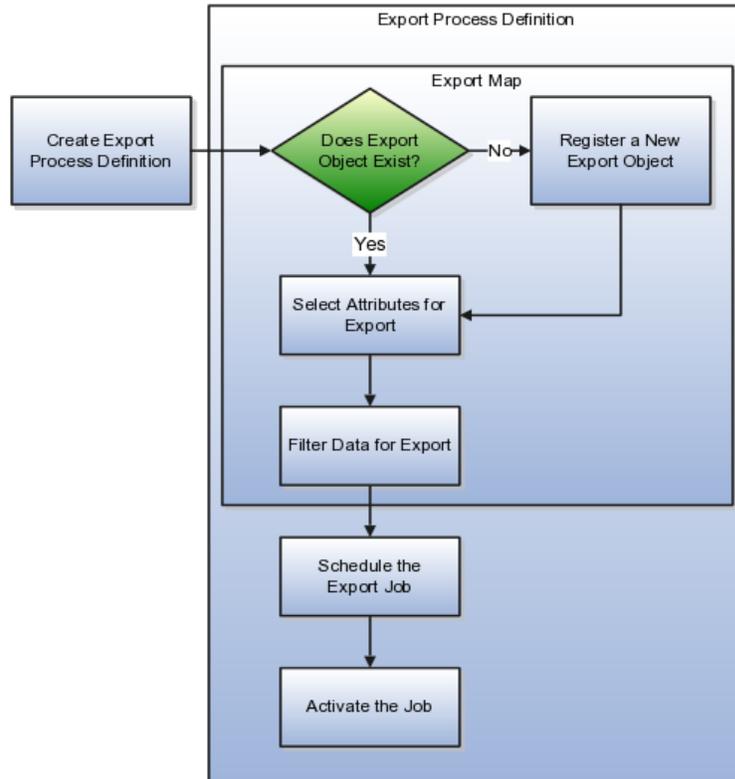
In order to create the extracts, two steps must be completed. First, mapping files for the full and incremental extract processes must be defined in the Fusion CRM system. These maps will specify which columns and filters will be applied to each export process for each export object. For the incremental extracts, filters can be created that leverage time stamps to determine which rows will be queried out of the system. All mapping files will be saved in the system and reused for each extract.

Next, the hourly and weekly data export processes are scheduled in the Fusion export tool. For any required incremental and scheduled export, the export task should either exist or created through the UI. Oracle Web Services would only be used to schedule the export and start it. After each export process executes and completes, a comma or tab delimited data file will be created and stored in the Fusion system as an attachment. The formatted file can be downloaded by using the `getAttachment()` web service or by using the interactive UI in the export tool.

There are no transactional steps for this process in the Fusion CRM application, there are only prerequisite setup steps. Once these steps are complete the process

should run automatically. The prerequisite steps in Fusion are to create an export map and export job schedule for each object to be extracted (this only needs to be done once).

The Bulk Export Process Definition is made up of the Export Map and the processing schedule. See the steps below.



### Select the Export Object

The export object is the Fusion data base object where the data resides. It is made up of attributes. If you need to export data from a custom table, you must register the object as an export object. This is accomplished from the Manage Export Process UI, Manage Export Objects action. All the delivered tables and their attributes are available for export.

### Select Attributes

The export object is made up of attributes. These attribute may be selected for export or not included. You can edit the header text of the attribute to make its meaning more clear to other users of this process.

### Filter Criteria

Each attribute may have limits or conditions enforced. Various operators are available for selecting the data to precisely select the data required for the export. You can save the filter criteria and then modify the criteria and save it under a new name. You can then change the filter by coming here to select an alternate filter name. Because the filters are related to the export object, if you reuse a map and change the filter, you are changing it for any Export Process Definition that

uses that map. The attributes you use for the map have no bearing on what is available in the filter. All fields from the VO are available for use in the filter. For example, you can filter by TYPE but not show TYPE in the output.

### Schedule the Export Process

Once defined, the export process is scheduled. You can run the process immediately or at the time and date of your choosing. If you decide to schedule the job at a later date you can also choose to set up a recurring schedule of extracts.

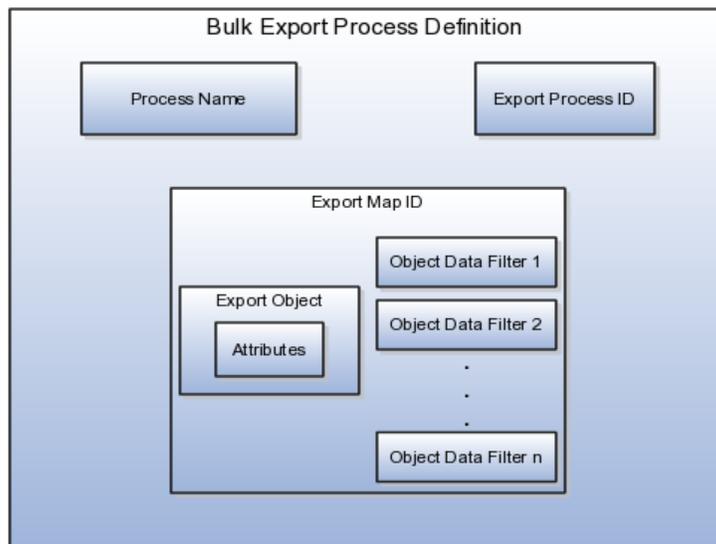
### Activate the Job

By clicking on the Activate button, you make the job available to be run. It does not start an export process.

## Bulk Export Process Components: How They Work Together

In the two step process used by Oracle Fusion Bulk Export, the first is the mapping of files for the full and incremental extract processes. The second step is the scheduling of the export. You create a process definition that includes both of these steps.

The process definition has three components that together make exporting data easier by leveraging the export maps that you have already built. The process name, the export process ID and the export map ID all serve to identify the specific process definition as well as leverage your work with reusable export maps



## Process Name

A user-supplied, natural language way to refer to the Export Process Definition. This enables you to refer to the export process definition easily rather than using the machine generated ID. For example, use Customer or some other meaningful name as the export process name instead of the export process ID 100000019897192.

## Export Process ID

A unique, system generated identifier for the export process definition that ties together the export map, with its export objects and filters, and the defined export schedule.

## Export Map ID

A unique identifier for the export map itself. You can name the export map or leave the field blank for a system generated map name to be entered. You can reuse the export map in different process definitions. For example, you could create a process definition to export all the data from the Customer export object. You could then reuse that export map and apply a new filter on the data to create an incremental export, such as data accrued since the last export date.

## FAQs for Define Data Export

### How can I tell which objects to select?

Review the requirements for the data to be exported and determine the source view object that holds the attributes you want.

### How can I create a subset of data for export?

Full sets of data are not always required for export. To create a subset of data, use filter criteria to determine the time frame or scope of data, based on values of the attributes. For example, to find activities for a certain period, use a project start date from 1/1/11 through 3/31/11, navigate to the Export Objects Detail Sub Page and click the filter icon. Fill in the filter criteria dialog for the project start dates to select the data to be exported. You run the export by navigating to the **Setup and Maintenance** menu, selecting **Manage Task Lists and Tasks**. Then, search for **Schedule Export Processes** and click the **Go to Task** icon on the line for this task.

### How can I see my exported data?

You can look on the Schedule Export Processes, Overview page to see the History subpage. The column Exported Data File shows a hyperlink to your output file. This file will be a comma separated variable or a tab delimited file. Click that link to open the file and see the exported data.

### **How can I use my own View Object for export?**

You can use your own defined view objects as a source for Bulk Export. To register your view objects for export, select **Setup and Maintenance** from the **Tools** menu and search for the **Manage Export Objects** task. Click the **Go to Task** icon and on the **Manage Export Objects** page click the Create icon to add your View Object, making it available for use.

### **What happens if I change the sequence number or header text?**

Changing the sequence number changes the order of the attributes in the exported data file. Changing the header text enables you to give a more intuitive meaning to the attribute and the associated data.

### **What happens if I need data from more than one view object?**

Select as many view objects as required to be export objects for the export process. Choose the individual attributes required from each export object.

## Common CRM Configuration: Define Sales Prediction Configuration

### Define Sales Prediction Configuration

#### Sales Prediction Engine: Overview

Predictive models analyze sales data to evaluate buying patterns and selling win or loss rates. The model can be used to identify customer profiles with a greater likelihood to buy certain target products. After evaluation of model results, lead generation can be scheduled in order to disseminate lead recommendations to users who can benefit from the insight gathered. Each lead recommendation includes win likelihood in addition to the average expected revenue and sales cycle duration from past similar deals for the same product to similar customers.

#### Manage Recommendations Configuration Parameters: Explained

The Oracle Fusion Sales Predictor Engine (SPE) provides configuration parameters that you can edit to influence the behavior of the application. These configuration parameters control how recommendations are generated and displayed in other applications.

##### Configuration Parameters

The configuration parameters are listed in the following table.

Configuration Parameter	Default Value	Description
displayModelBasedRecommendation	True	When this is set to True, model-based recommendations are displayed in consuming applications.
eligibilityMinEligibleNum	0	Sets the minimum threshold for number of recommendations eligible for each customer. If eligible recommendations are lesser than the threshold defined here, SPE requests more recommendations from InLine Service (ILS). This parameter applies only when leads are not eligible.

eligibilityNumRecommendationsIL	50	Indicates the number of recommendations to request from ILS when the number of eligible recommendations is lesser than eligibilityMinEligibleNum. This parameter applies only to the Order Capture eligibility rules.
enableAvgWinRateRecommendatio	True	When set to True, recommendations based on average win rates are displayed in consuming applications. This parameter applies only to the Order Capture eligibility rules.
enableEligibilityRules	True	When set to True, marks leads in the staging table. Indicates whether to apply Order Capture eligibility rules. When set to False, it disables the parameters eligibilityMinEligibleNum and eligibilityNumRecommendationsILS.
leadSalesChannel	Null	The selected value is updated in the SALES_CHANNEL in the lead staging table for leads customization. During implementation, you can customize the ILS with new values.
leadSourceCode	Null	The selected value is updated in the SOURCE_CODE in the lead staging table for leads customization. During implementation, you can customize the ILS with new values.
numberOfTopDrivers	3	Defines the number of top drivers to return for each recommended product. The values can range from 0-5.

## Select Model Entities and Attributes

### Selecting Model Entities and Attributes: Examples

Oracle Fusion Sales Prediction Engine leverages the power of predictive analytical models to identify patterns and correlation of data for the purpose of identifying what products to consider positioning next to your customers. The application leverages multiple mathematical models in order to formulate the likelihood a given customer will purchase a specific product, the estimated revenue which can be expected, and the duration of the estimated sales effort.

After the statistical model generates against the historical sales data based on the selected entities and attributes, summary and detail reports show critical

insights as to what customers buy and can be used to predict the right products for the right customers. You can then use these insights to refine the process of generating leads based on what the customers are more likely to buy. Moreover, the same model can be used to predict the win likelihood of current opportunity revenue based on analysis of similar opportunities in the past. Also, product domain or market experts can write prediction rules to recommend products based on a set of rules conditions, utilizing all available customer profile attributes as well as other metrics.

The statistical analysis will identify which data has an influence in determining a likelihood to buy. After the statistical model generates against the historical sales data based on the selected entities and attributes, summary and detail reports show critical insights as to what customers buy and can be used to predict the right products for the right customers. As such, the decision regarding the selection of entities and attributes is critical. While the selection of certain entities and attributes may seem logical based on the awareness of sales behavior (customers in certain industries have a stronger affinity for certain products, for example), where there is uncertainty, the statistical model analysis will provide the necessary insight into whether patterns and correlation emerge. As such, as much available data as possible should be leveraged for the purpose of evaluation. Some factors which weight into the decision include the availability and accuracy of the data.

While selecting attributes, you must not select similar attributes for model training. For example, Annual Revenue and Annual Revenue Category. Your customer's annual revenue might range from 250,000 dollars to 50 million dollars. However, for efficient management, you decide to target only five customer types based on the Annual Revenue Category such as, Nano (250,000 dollars to 1 million dollar), Small (1-5 million dollars), and so on. The Annual Revenue Category uses Annual Revenue for this classification. Therefore, you must use either Annual Revenue or Annual Revenue Category but not both as they are redundant. Similar duplicate attributes could manifest in multiple areas such as Number of Employees and Company Size, Location and Zip Code, and so on.

Additionally, the application allows for the inclusion of expert insight from product management and sales and marketing operations. These expert insights can be captured via prediction rules. The same data made available to and leveraged by the predictive model, is also available for rule authoring.

## **Scenario**

Your company sells a service that appeals mostly to larger companies, and another service that targets smaller customers. If a customer purchased one of your product packages, then the customer already has all service needs covered by the package. You want to know, given a product recommendation, if credit score, asset, and customer size are important predictors when it comes to recommending this particular product.

You select the following entities and attributes:

- Customer Profile
  - Annual Revenue
  - Credit Score

- Customer Size Code
- Past Purchased Products or Services
  - Assets and Service Contracts

These entities and associated attributes entail the data available to the enterprise which the predictive models can evaluate for identifying correlation, and which you can use to create prediction rules. Over time, you can further refine the selections based on availability of data and the cost to integrate that data for evaluation.

## **Scenario**

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# Common CRM Configuration: Define Outlook Integration

## Define Outlook Integration

### Implement Oracle Fusion CRM for Microsoft Outlook: Explained

Before using the Oracle Fusion CRM for Microsoft Outlook application, several setup tasks must be performed. Some of these are Fusion-specific tasks that are done by the environment hosting team or the customer implementation team. Other tasks are related to setting up the users' computers to use the application, including the install and initialization of the extensions to Microsoft Outlook (Outlook). These tasks are described in more detail in the sections that follow.

For information on supported software versions, see the related topic, [Supported Software for Oracle Fusion CRM for Microsoft Outlook: Explained](#).

#### Overview of Fusion-specific Setup Tasks

At a high level, the following are the Oracle Fusion-specific setup tasks involved in implementing CRM for Microsoft Outlook:

- Required: Install Fusion CRM, including the CRM for Microsoft Outlook application.
- Required: Perform Fusion setup tasks for Oracle Fusion Common Components, Oracle Fusion Customer Center, Oracle Fusion Sales, and Oracle Fusion Marketing.
- Optional: Perform customization and security changes for CRM for Microsoft Outlook, after initial setup.

#### Overview of Setup Tasks Required for Each Computer Running CRM for Microsoft Outlook

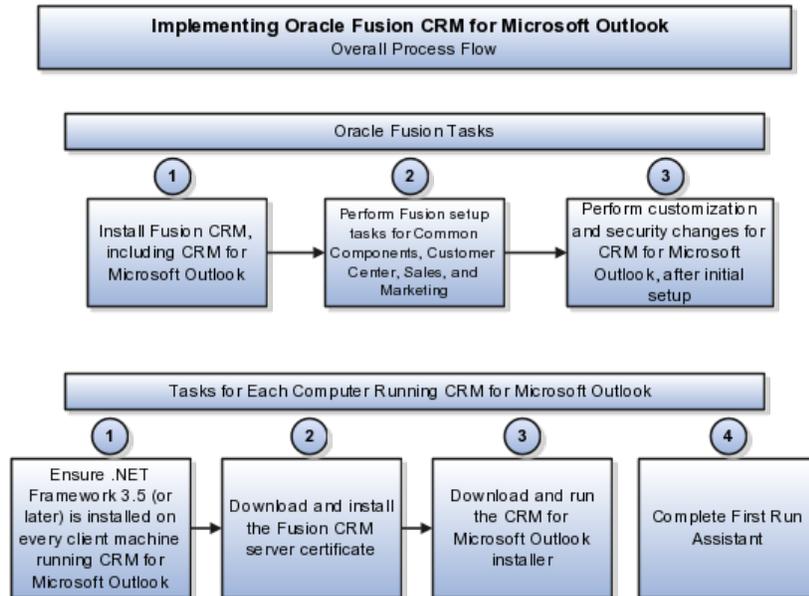
At a high level, the following are the setup tasks required for each computer that will run CRM for Microsoft Outlook:

- Required: If not already present, install Microsoft .NET framework version 3.5 SP1 (or later).
- Required: Download and install the Fusion CRM server certificate.

- Required: Download and run the CRM for Microsoft Outlook installer.
- Required: Complete First Run Assistant to set up application options and perform initial synchronization to get Outlook configuration and user data from the Fusion CRM application.

## Implementation Task Flow Overview

The overall process flow for implementing CRM for Microsoft Outlook is shown in this section.



## Fusion-specific Implementation Tasks

Following are the CRM for Microsoft Outlook implementation tasks specific to Oracle Fusion.

### 1. Install Oracle Fusion CRM Applications suite

As a prerequisite setup task, provision the server environment and install the Fusion CRM Applications suite. This task is typically completed by the hosting operations team or customer implementing the Oracle Fusion CRM Applications suite and is the basis for the rest of the setup steps described in this section.

### 2. Perform CRM setup tasks for functionality used by CRM for Microsoft Outlook

Because CRM for Microsoft Outlook allows users to access and manage their CRM data in Microsoft Outlook, it is necessary to complete the required setup tasks for the relevant CRM functionality. For example, the following setup tasks must be completed before using CRM for Microsoft Outlook:

- Set up reference data, such as: address and phone formats, currencies, geographies, and resources.

- Set up CRM functional areas exposed in CRM for Microsoft Outlook, such as: calendar and task management, customer and contact management, lead management, and opportunity and revenue management, including the sales product catalog.
3. Optionally, CRM for Microsoft Outlook can be configured by completing these Outlook-specific setup tasks:
- Configure CRM for Microsoft Outlook client configuration files:  
Configure only if Outlook client customizations are needed
  - Configure CRM for Microsoft Outlook client deployment packages:  
Configure only if Outlook client customizations are needed
  - Configure CRM for Microsoft Outlook server configuration file:  
Configure only if Outlook configuration includes references to new services

Other, security-related tasks, performed in Oracle Fusion Authorization Policy Manager (APM), may be necessary depending upon your applications configuration. Perform these tasks after initial setup, as needed. If new job roles are created, you will need to associate these new roles with the predefined data privileges and Outlook configuration packages. If you create custom Outlook deployment packages, there are additional steps required. See the "Related Topics" section at the end of this topic for more information.

### **Non-Fusion Implementation Tasks**

Following are the non-Fusion implementation tasks for CRM for Microsoft Outlook.

- Verify Microsoft .NET Framework 3.5 SP1 or higher is installed on all computers that run CRM for Microsoft Outlook.
- Verify each user has a Microsoft Exchange mail profile configured with Cached Exchange Mode (which supports offline storage in an .OST file format) or has a separate personal folders storage (in .PST file format) to store CRM data.
- Deploy the Fusion public certificate into users' Personal and Trusted Root Certificate Authorities directories on users' computers. The certificate is provided by the environment hosting team or the group implementing Fusion CRM. See the related topic, Options for Deploying the Public Certificate: Explained, for steps describing how users can import the certificate themselves or how to automate the process.
- Verify that each user can access the CRM for Microsoft Outlook installer from the download page in the Sales application. The download page is accessible from the application preferences menu.

### **Run CRM for Microsoft Outlook Installer**

Each user must run the CRM for Microsoft Outlook installer on his/her computer. See the related topic, Deploying and Installing Oracle Fusion CRM for Microsoft Outlook: Explained, for more information.

# Creating Deployment Packages: Explained

In Oracle Fusion CRM for Microsoft Outlook, deployment packages contain metadata files that describe the CRM application extensions deployed to users' computers. To provide users access to a new client configuration, you can either create a new deployment package or create a new instance of an existing package, as discussed in the following sections.

## Create New Deployment Package

When you create a new package, in addition to activating it, you must configure a data security policy that allows users to access the package. This secondary task is done in Oracle Fusion Authorization Policy Manager (APM) and involves the following steps:

1. In the top left section of the APM application window, use global search to search for Database Resources using search criteria equal to `Outlook`. This should return the result, Outlook Edition Metadata Package.
2. Select the Edit button on the Search Results pane to edit the Outlook Edition Metadata Package database resource.
3. In the Edit Database Resource tab, select the Condition tab and create a new condition on the database resource. Specify any unique name/display name, and set the SQL predicate to `package_name = '<name_of_deployment_package>'` (for example, `package_name = 'NewOutlookPackage'`).
4. Select the Submit button to commit the change.
5. Repeat step 2. In the search results pane, select Edit to reopen the Edit Database Resource page to edit the Outlook Edition Metadata Package database resource.
6. In the Edit Database Resource tab, select the Policy tab, and select the policy that should have access to the new package (for example, `ZOE_SALES_MGR_OUTLOOK_DUTY`), and then select Edit.
7. In the lower section of the page, select the Rule tab.
8. Select the lookup control next to the condition field and select the new condition created in step 3.
9. Select Submit to commit the changes.

## Create New Instance of Existing Package

When you use an existing package, you create a new instance of the package with different configuration files. When using this method, you must inactivate the previous instance and activate the new instance. There is no need to configure a data policy when creating a new instance of an existing deployment package.

# Options for Deploying the Fusion Public Certificate: Explained

Before using the Oracle Fusion CRM for Microsoft Outlook application, several setup tasks must be performed. One of these tasks is to deploy the Fusion Public

Certificate to each user's machine in order to support secure exchange of data between Outlook and Oracle Fusion CRM during synchronization. The Fusion CRM application public certificate is available from the CRM for Microsoft Outlook preference page in the Oracle Fusion Sales application.

### **User-Managed Deployment using Microsoft Machine Console**

If users have sufficient privileges and knowledge to import the certificate themselves, they need to make sure the certificate is imported to both the Personal and Trusted Root Authority certificate stores. This can be done by following these steps:

1. In the Windows Start menu select **Run**, and type **mmc** to open the Microsoft Machine Console application.
2. In the console window, select **File**, then **Add/Remove Snap-in**.
3. In the **Add/Remove Snap-in** window, select **Add**, and then select the Certificates snap-in. Select the **Add** button to add it.
4. Select the option to manage certificates for **My user account** and select **Finish**.
5. Select **Close** and **OK** to complete adding the Certificate snap-in.
6. Expand the **Certificates - Current User** group to review all the certificate stores.
7. Expand the **Personal** store, right-select the **Certificates** child folder and select **All Tasks - Import**.
8. In the next several windows, find the certificate file and complete the import into the **Personal** certificate store.
9. Repeat step 7 using the **Trusted Root Certification Authorities** store, and repeat step 8 to import the certificate file.

### **Automate Deployment with CertMgr.exe and Batch Scripting**

Alternatively, to automate the installation of the public certificate into the appropriate certificate stores on the users' computers, deploy the CertMgr.exe program available from Microsoft in the Windows SDK to users' computers, along with the certificate file, and a batch script that implements the following commands:

- certmgr.exe -add -c <cert\_name> -s root -r localMachine
- certmgr.exe -add -c <cert\_name> -r CurrentUser -s My

In the script above, the placeholder for the certificate name would be replaced with the name of the certificate file (for example, oracle.cer).

## **Deploying and Installing Oracle Fusion CRM for Microsoft Outlook: Explained**

Oracle Fusion CRM for Microsoft Outlook includes a Microsoft Outlook add-in that must be deployed and installed on each user's computer. The installer file

is available from the CRM for Microsoft Outlook preference page in the Oracle Fusion Sales application.

## User-Managed Deployment

Users can complete the installation by running the Oracle Fusion CRM for Microsoft Outlook.msi file on their computers. The Outlook application must be closed during this process. During the install, the user will specify:

- The install directory
- The Outlook mail profile to use

## Automated Deployment using Batch Scripting

An alternative to users installing CRM for Microsoft Outlook themselves is for the installer to be deployed to user computers by the administrator using Windows Group policies, Microsoft System Center Configuration Manager (SCCM), or other desktop software deployment mechanisms. In this case, the administrator will access the installer file from the appropriate preference page in the Oracle Fusion Sales application and write a batch script to run the installer with several default parameters, such as the install directory, the mail profile to install to, and all of the elements of the connect string.

The following sample batch script shows how the installer installation can be automated:

```
msiexec /i "Oracle Fusion CRM for Microsoft Outlook.3.00.50.msi"  
  OL_PROFILE=$DEFAULT FUSION_SERVER_HOST="hostedappserver.com"  
  FUSION_SERVER_PORT="443" FUSION_SERVER_SUFFIX="outlookEditionConnector/  
OutlookRequestHandlerService" FUSION_SERVER_PROTOCOL="https" /QR
```

The parameters in the script include the following:

- The name and relative path to the installer file. In the example, the script assumes that the .msi file is in the same directory as the batch script.
- OL\_PROFILE: This is the name of the user's Outlook mail profile. Besides the mail profile name itself, predefined values can be provided (for example, \$DEFAULT and \$PREFERRED). When using \$DEFAULT, the default mail profile will be selected. When using \$PREFERRED, the installer will try to use the default profile first, but if it doesn't satisfy the mail profile configuration requirements (if it doesn't use Cached Exchange Mode or use Personal Folders storage) then the installer will try to use another profile.
- FUSION\_SERVER\_HOST: This is the server name or IP address.
- FUSION\_SERVER\_PORT: This is the port that CRM for Microsoft Outlook is configured to use.
- FUSION\_SERVER\_SUFFIX: This is the URL suffix for accessing the CRM for Microsoft Outlook Web services. The one provided in the example above is the default deployment path for the CRM for Microsoft Outlook application, and it will typically be used.
- FUSION\_SERVER\_PROTOCOL: This is either "http" or "https", depending on whether the application is deployed with SSL enabled or not.

Note that the script is using the standard switches provided by the Microsoft Installer executable, msiexec.exe. Documentation of the switches can be reviewed by typing **msiexec.exe /?** at the command prompt.

## Completing the Application Setup after Installation

Once the installer finishes, the first time the user opens Outlook there will be additional dialogs that prompt the selection of various application options. This process is called the First Run Assistant, and each user will specify:

- The Fusion CRM username and password.
- The CRM for Microsoft Outlook connect string. Note that if the installation was completed with the various **FUSION\_SERVER\_\*** variables, the connect string will be pre-filled and the user will not need to specify those details.

Once the user credentials and connect string are provided, the application will connect to Fusion to download and apply the Outlook configuration available to the user. Once the configuration is applied the user is presented with additional First Run Assistant dialogs to complete the personalization process and perform an initial synchronization. In this second phase of the First Run Assistant, the user will specify:

- Synchronization settings, including the default synchronization frequency and synchronization filters. The application synchronizes data based on synchronization filters, and will automatically initiate a synchronization on the specified frequency.
- Whether to share new Appointments, Contacts, and Tasks in CRM for Microsoft Outlook by default.
- Whether to convert his contact list to Fusion contacts.

Once the user completes the First Run Assistant, the application will begin the first synchronization.

## Oracle Fusion CRM for Microsoft Outlook and the Fusion Server: How They Fit Together

Oracle Fusion CRM for Microsoft Outlook is a composite application that allows users to work with Oracle Fusion CRM data inside Microsoft Outlook. The application is deployed to Outlook using the add-in framework and extends the Outlook data model and UI framework in order to store and render CRM data to the user.

### How Oracle Fusion CRM Data is Displayed in CRM for Microsoft Outlook

Oracle Fusion CRM data is synchronized to users' computers and maintained in native Microsoft Outlook storage. While working in Outlook, users access CRM data that is stored locally, even when connected to the corporate network. The changes made to the CRM data are periodically synchronized with the Oracle Fusion CRM application. There are two options for storing the CRM data:

- A Microsoft Outlook mail profile configured to use a Microsoft Exchange service with the Use Cached Exchange Mode enabled to allow data to be stored in an offline storage file (.ost file format)

- A Microsoft Outlook mail profile configured to use the Internet E-Mail service with personal folder storage (.pst file format)

Because CRM data is maintained in Outlook storage, it can be displayed and accessed like any other Outlook item. For instance, CRM data types will appear in the folders for the user's mailbox alongside other native Outlook types, and users can select the CRM folder and view the CRM records there as they would work with other Outlook information. Within a given folder, the user can select and open a single record to view the data. In this case, the user will have access to CRM data that appears within an Outlook form or inspector window.

In addition to accessing CRM data in Outlook explorer views and inspector windows where the CRM data is the primary focus, users will also be able to access CRM context when viewing standard Outlook items like appointments, e-mails, and tasks. For these Outlook types, the user will be able to specify the CRM customer, related sales item, contacts, and resources associated with the Outlook item, and will be able to navigate to the related CRM item to review additional details.

Data that is stored in either cached Exchange mode in .ost file format, or in personal folders in .pst format, is accessible to the CRM for Microsoft Outlook user while disconnected. The user interacts with the CRM data that is stored locally on his computer and periodically synchronizes data between Outlook and the Fusion CRM server. Synchronization happens when the user is connected to the corporate network and can access the CRM application server. Because the user always works with the local set of CRM data, he will have access to the data from the server immediately following the synchronization process, but doesn't directly access or update the data on the server. Changes are made to the local data set, and then the synchronization process takes care of making changes to the local or server data sets to align the two.

### **Overview of the Synchronization Process**

After CRM for Microsoft Outlook is installed, the user must perform an initial synchronization to retrieve his accessible CRM data. Several synchronization settings are configured as part of the First Run Assistant process that influence the initial synchronization. These include the frequency of automatic synchronization, the synchronization filters to use, and which objects are enabled or disabled from synchronization. These settings can be changed by the user after the initial synchronization. Once the user completes the First Run Assistant process, the initial synchronization will begin. The duration of the synchronization process will depend on the number of records that will be synchronized, network bandwidth, load on the server, as well as processing speed and memory available on the user's computer. A rule of thumb is to try to configure synchronization filters so that no more than five to ten thousand records are synchronized.

During the synchronization process, the application performs the following steps:

1. Connects to the Fusion CRM server CRM for Microsoft Outlook synchronization services using SOAP over HTTP and authenticates the user.
2. Performs a check to determine the configuration for which the user possesses access. Access to an Outlook configuration is established based on a privilege associated with a user's job role that allows access to an Outlook client deployment package.

3. If a user has access to a deployment package, it is downloaded, and the configuration is applied to the Outlook mailbox.
4. The final step is to synchronize data. The records that are retrieved depend on the internal filters configured on the server, data security applied to the objects that are synchronized, and the user filters.

Subsequent synchronization cycles follow a process that includes these steps:

1. CRM for Microsoft Outlook sends a request to the Fusion CRM server with a list of objects and the current user filters and requests a snapshot of IDs and timestamps for all records that are within the scope of the object list and specified filters.
2. The server sends a response with the requested information.
3. CRM for Microsoft Outlook makes a local snapshot of IDs and timestamps and compares that to the server snapshot.

The differences between the local snapshot of IDs and timestamps and the server snapshot result in a few possible actions:

- Inserts, updates, or deletes data on the Fusion server based on changes that occurred in CRM for Microsoft Outlook since the prior synchronization.
- Inserts, updates, or deletes data in CRM for Microsoft Outlook based on changes that occurred on the Fusion server since the prior synchronization.

In all cases, changes that are made to data locally in the CRM for Microsoft Outlook client are only sent to the Fusion server during the subsequent synchronization session; however, users who want to synchronize a change or set of changes immediately can start the synchronization cycle manually to avoid waiting for the next scheduled synchronization.

### **About Web Services Usage During Synchronization**

The synchronization process on the Fusion server is supported by CRM for Microsoft Outlook accessing Web services. CRM for Microsoft Outlook accesses two Web services directly -- one that provides access to data during synchronization processing, and one that provides access to metadata. The synchronization process is initiated by CRM for Microsoft Outlook within the Outlook application, and the Fusion server accepts synchronization requests, routes them to the appropriate services within the service, and returns the appropriate responses. The work that each part of the synchronization architecture performs is summarized as:

1. CRM for Microsoft Outlook synchronization engine and connector that are deployed to Microsoft Outlook perform the following:
  - Initiates a new synchronization request based on a preconfigured automatic synchronization interval or by an ad hoc user request to start a new synchronization cycle.
  - Uses the stored details about username, password, server connection information, and CRM public security certificate stored on the user's computer to format and send requests to the CRM application server.

- Based on the configuration deployed to a user's computer (including object types deployed), fields defined as part of those objects, synchronization filters and the like, the application generates the appropriate SOAP message content and expects the corresponding response when using the HTTP or HTTPS transport to communicate with the CRM applicaiton server.
2. The Fusion server hosts an application that listens for CRM for Microsoft Outlook synchronization requests, and the synchronization services perform the following:
- The OutlookRequestHandlerService Web service processes all incoming requests for data synchronization, and the OutlookMetadataService Web service handles requests to retrieve metadata.
  - Incoming SOAP messages are routed to the appropriate service. These messages include one or more requests to invoke a method on the target service.
  - Requests sent to the OutlookRequestHandlerService in particular are routed to other services to perform the action expected from the synchronization process. For instance, a request to get appointment data sent to the OutlookRequestHandlerService will be routed to the appointment Web service that will process the request and return the requested data, and the OutlookRequestHandlerService will send this back to the CRM for Microsoft Outlook client that sent the request.

A synchronization cycle will include requests to get a server snapshot, and can then include many additional requests to query, insert, update, and delete data based on the changes detected when CRM for Microsoft Outlook compares the local and server snapshots.

- Each of these requests is processed based on the type of request, and is either managed within the OutlookRequestHandlerService processing directly or is routed to the appropriate target service to be fulfilled.

### **Extensions to the Standard Outlook User Interface**

In addition to standard Outlook data storage mechanisms and the synchronization engine, several extensions to the standard Outlook user interface provide a way to access and manage CRM data inside of Outlook. Examples of extensions to the standard Outlook user interface include custom toolbar buttons, menu items, inspectors that display Fusion CRM data, controls that are embedded on standard Outlook item inspectors, the personalization options dialog box, and so forth. The CRM for Microsoft Outlook client can use these extensions to perform a variety of tasks.

The following are some examples of tasks that the user can perform:

- Create, view, and edit CRM data in Outlook.
- Mark an Outlook item to be shared with CRM Desktop and associated sales data.
- Initiate a standard Outlook action, such as sending an e-mail or scheduling a meeting in the context of a sales item.

The behavior of the extended Outlook user interface is influenced by custom CRM business logic that performs a variety of validations during data entry. The following are some examples of validation that are performed:

- Confirm that the data type is valid for a given field.
- Make sure fields that are required are populated.
- Prevent changes to fields or records that are configured to be read-only.
- Validate field values based on comparisons with other fields or static values.
- Apply conditional validation so that a field may be required or read-only based on other criteria.

### **Physical Components that CRM for Microsoft Outlook Architecture Uses**

Following are the major physical components that CRM for Microsoft Outlook uses:

1. CRM Database

This is the database accessed by the CRM application that stores data about customers, contacts, business opportunities, and so on.

2. CRM Application Server

This is the server that hosts the CRM for Microsoft Outlook application and the related Outlook Web services, and therefore is the main entry point for synchronization requests coming from the CRM for Microsoft Outlook add-in running on users' computers.

3. Laptop or Desktop

This is the computer where the CRM for Microsoft Outlook add-in is installed, and where users are working with CRM data in Outlook. The Outlook add-in will install binary files that support synchronization of CRM data and integration with Outlook, including support to extend the Outlook data model and user interface, and resource files containing images and strings to initialize the application. The CRM for Microsoft Outlook add-in will connect to the CRM application server and download the appropriate configuration and CRM data for the user which are also stored on this computer.

4. Corporate Messaging Infrastructure

The corporate messaging infrastructure encompasses all of the server computers and other network topology that support the transmission of e-mail messages, and other personal information management capabilities such as the corporate calendar, contact and task lists.

### **CRM for Microsoft Outlook Functional Components**

Following are the CRM for Microsoft Outlook functional components:

1. CRM Extensions in Outlook

Extensions integrate with Outlook data storage and deliver additional business logic and extensions to the Outlook user interface to allow users

to access and modify CRM data. CRM data is viewed with extensions to the Outlook user interface. Changes to CRM data are controlled by business logic and custom controls and then finally stored in Outlook data storage (for example, in a user's mailbox storage file). The user works with a version of the CRM application, as defined in the configuration deployed to the user's computer. Changes to CRM data since the last synchronization cycle are calculated by the synchronization engine during data synchronization with the CRM application server.

## 2. Synchronization Engine

The synchronization engine handles requests to initiate a synchronization cycle and is responsible for structuring the requests that are sent to the server. For the initial and incremental synchronization cycles, the synchronization engine manages requests to count records available to the user; sends a request to generate a server snapshot; initiates the process to generate a local snapshot; compares the results; and calculates the necessary requests to be sent to the CRM application server to complete the synchronization of local and server data sets. The synchronization engine works in tandem with the connector to correctly format and transmit messages with the CRM application server.

## 3. CRM Connector

This part of the CRM for Microsoft Outlook add-in is responsible for knowing how to connect and communicate with the CRM application server. The connector uses details such as the username, password, connect string, public security certificate, and client metadata to interpret requests from the synchronization engine to correctly format and send requests to the CRM application server. All details of the requests to send to the server are orchestrated by the synchronization engine, but the transmission of the requests and retrieval of the responses is done by the connector. The connector uses the details in the connect string to know where to send requests to the CRM application Web services.

## 4. CRM Application Web Service

CRM Web Service provides functionality to handle the user session, and to add, delete, modify, count, and list data objects that are required by the Web service connector.

# Customizing the Product Name: Example

You can customize the product name displayed by the Oracle Fusion CRM for Microsoft Outlook client, by modifying the `package_res.xml` client configuration file.

Use an XML editor to open the `package_res.xml` client configuration file. Create or modify any of the following attributes, as required:

```
<str key="app_name">CRM for Microsoft Outlook</str>
```

```
<str key="pim_name">Outlook</str>
<str key="remote_app_name">Oracle Fusion</str>
```

For example, in the `remote_app_name` attribute, change Oracle Fusion to the name of your company.

## Customizing the Support Team E-Mail Address: Example

When a user clicks **Send Feedback** on the Feedback tab within Oracle Fusion CRM for Microsoft Outlook, a new e-mail message is created, and the e-mail is automatically addressed to the support team. You can customize the support team's e-mail address by modifying the `package_res.xml` client configuration file.

Use an XML editor to open the `package_res.xml` client configuration file. In the following code, change **email\_address** to the required e-mail address.

```
<!-- Feedback page -->
<str key="support_email">email_address</str>
```

For example:

```
<str key="support_email">support@your_company.com</str>
```

## Making a Field or Form Read-Only: Example

You can make Oracle Fusion CRM for Microsoft Outlook fields and forms read-only by modifying the `forms.js` client configuration file.

### Locate the Relevant Section of the Client Configuration File

Use a JavaScript editor to open the `forms.js` client configuration file. Find the following code in the configuration file:

```
// LEAD FORM SCRIPTS //
function lead_form(ctx)
{
```

The example above shows how to make the **Lead** field read-only.

### Making a Field Read-Only

To make a field read-only, add the following code below the section of code you have just located:

```
ctx.form[control_id].enabled = false;
```

The `control_id` should be the identifier of the field that you want to make read-only.

### Making a Form Read-Only

To make a form read-only, add the following code below the section of the client configuration file you have just located:

```
ctx.form.enabled = false;
```

## Customizing Text That Appears in the Oracle Fusion CRM for Microsoft Outlook Client: Example

You can customize the text that appears in the Oracle Fusion CRM for Microsoft Outlook application, by modifying the text strings in the `package_res.xml` client configuration file.

Use an XML editor to open the `package_res.xml` client configuration file, and find the text string you want to change. For example, in the following code you want to change the text string "Customer name is required":

```
<str key="msg_customer_required">Customer name is required.</str>
```

You change the text string to "Enter a customer name for this organization", and so the code now appears as follows:

```
<str key="msg_customer_required">Enter a customer name for this organization.</str>
```

## Adding a Button to the Microsoft Outlook Ribbon: Worked Example

This example demonstrates how to add an Oracle Fusion CRM for Microsoft Outlook button to the Microsoft Outlook 2007 and 2010 Ribbon.

Firstly, you add the button to the Microsoft Outlook Ribbon, by editing either the `toolbars_12.xml` or the `toolbars_14.xml` client configuration file. Then you register the button, by editing the `application_script.js` client configuration file. Lastly, you define what action the button will execute when the button is clicked, by editing the `actions.js` client configuration file.

### Editing the `toolbars_12.xml`, or the `toolbars_14.xml` Client Configuration Files

1. Use an XML editor to open either the `toolbars_12.xml` client configuration file (for Microsoft Outlook 2007), or the `toolbars_14.xml` file client configuration file (for Microsoft Outlook 2010).
2. Find the following section in the client configuration file:

```
<custom_ui for="Microsoft.Outlook.Contact">
...
<tabs>
<tab idMso="TabContact">
<group id="FsnInspector2" label="#toolbar_actions">
```

3. Below the section specified in step two, enter the following code:

```
<button id="button_id" label="#resource_to_display" size="size"
image="resource_for_icon"
getVisible="get_visible" getEnabled="get_enabled"
onAction="button_on_action"/>
```

Substitute the values within the quotation marks with your button information, as follows:

- **button\_id** - enter the button's unique ID
- **resource\_to\_display** - enter the button label
- **size** - enter the button's display size. This can be either **small**, **normal**, or **large**.
- **resource\_for\_icon** - enter the URL for the button icon

## Editing the application\_script.js Client Configuration File

1. Use a JavaScript editor to open the application\_script.js client configuration file.
2. Go to the end of the application\_script.js file, and register the new button using the following code:

```
action_manager.add_action("button_id", new actions.some_action,
helpers.merge_contexts(toolbar_options, options));
```

Substitute the following values with your button information:

- **button\_id** - enter the ID of the button you want to register
- **actions.some\_action** - the action you will define in the actions.js client configuration file
- **options** - options for configuring action control.

The **options** that you can specify are as follows:

```
{
  "default": <"hidden"> | <"enabled"> | <"disabled"> | <"type_dependent"> |
  <"type_dependent_disabled">,
  "no_selected": <"hidden"> | <"enabled"> | <"disabled"> |
  <"type_dependent"> | <"type_dependent_disabled">,
  "single_selected": <"hidden"> | <"enabled"> | <"disabled"> |
  <"type_dependent"> | <"type_dependent_disabled">,
  "multi_selected": <"hidden"> | <"enabled"> | <"disabled"> |
  <"type_dependent"> | <"type_dependent_disabled">,
  "type_dependence": { <"type_id"> : <"hidden"> | <"enabled"> |
  <"disabled"> | <"context_dependent_enabled">, ... },
  "all_types_state": <"hidden"> | <"enabled"> | <"disabled">
}
```

The descriptions of these options are as follows:

- **no\_selected** - state of the action control when no items are selected
- **single\_selected** - state of the action control when a single item is selected
- **multi\_selected** - state of the action control when multiple items are selected
- **type\_dependence** - state of items by their types (if the state is **type\_dependent**)

- **all\_types\_state** - state of items by their type, that is not defined in the **type\_dependence** option

The possible states of the options are:

- **hidden** - action control is hidden
- **enabled** - action control is enabled
- **disabled** - action control is disabled
- **type\_dependent** - state of the action control depends on the selected item type
- **type\_dependent\_disabled** - state of the action control depends on the selected item type, but the control state is **disabled** by default
- **context\_dependent\_enabled** - state of the action control depends on the context

## Editing the actions.js Client Configuration File

1. Use a JavaScript editor to open the action.js client configuration file.
2. Define what action will occur when the button is clicked, by entering the following code:

```
function some_action(ctx, options) {
  this.execute = function (action_ctx) {}
  this.is_enabled = function (action_ctx) {}
}
```

Substitute the following values with your button action information, as follows:

- **execute** - a function that is executed by a button click
- **is\_enabled** - a function that returns a boolean value, that determines whether the button is enabled

## Displaying a custom Oracle Fusion field in a Oracle Fusion CRM for Microsoft Outlook form: Worked Example

This example demonstrates how to display a custom Oracle Fusion field in a Oracle Fusion CRM for Microsoft Outlook form. This example specifically shows you how to display the Opportunity Number field on the Opportunity form.

Firstly, you need to make the field Opportunity Number available through the Oracle Fusion API, and then customize CRM desktop to synchronize and display the field.

### Define the field to synchronize

1. Open the MetaInfo.xml file using an XML editor.
2. Find the following tag:

```
<Type Key="OptyId" Label="#obj_opportunity"...>
```

3. Add the following field tag as a child to this object:

```
<Field FieldName="OptyNumber" FieldType="xsd:string"></Field>
```

## Define the field on Opportunity object type

1. Open the fusion\_basic\_mapping.xml file using an XML editor.
2. Find the following tag:

```
<type id="opportunity" display_name="#obj_opportunity_plural"  
folder_type="10">
```

3. Map OptyNumber to Opportunity type. To do this, add the following snippet as a child to this Opportunity type:

```
<field id="OptyNumber">  
<reader>  
<map_i_user>  
<user_field id="fsn Opportunity Number" ol_field_type="1"></user_field>  
<convertor>  
<string/>  
</convertor>  
</map_i_user>  
</reader>  
<writer>  
<outlook_user>  
<user_field id="fsn Opportunity Number" ol_field_type="1"></user_field>  
<convertor>  
<string/>  
</convertor>  
</outlook_user>  
</writer>
```

4. To map the display name, open the package\_res.xml file and add the following code below the <res\_root> section.

```
<str key="lbl_opty_number">Opportunity Number:</str>
```

## Insert a label and the OptyNumber field

1. Open the forms\_12.xml file using an XML editor.
2. Insert the label and the OptyNumber field below the comment <!--end opportunity reason win los--> on the Opportunity form.

```
<!-- opportunity number -->  
<cell size="20">  
<stack layout="horz" spacing="3">  
<cell size="4"/>  
<cell size="100">  
<stack layout="vert" padding="2">  
<cell>  
<static id="lbl_opty_number" tab_order="150">  
<text>#lbl_opty_number</text>  
</static>
```

```

</cell>
</stack>
</cell>
<cell>
<edit id="opty_number" tab_order="151">
<field value="string">OptyNumber</field>
</edit>
</cell>
</stack>
</cell>
<!--end opportunity number-->

```

3. Find the following comment and the cell containing a list of controls extended in the previous step and resize its value to 220.

```

<!-- opportunity details -->
<cell size="197">

```

## Setting Up Synchronization for Oracle Fusion CRM for Outlook: Worked Example

This example shows how to perform an initial synchronization between Oracle Fusion CRM for Microsoft Outlook (CRM for Microsoft Outlook) and the Oracle Fusion CRM application. CRM for Microsoft Outlook synchronization obtains the current Oracle Fusion CRM user data and the current client deployment packages.

### Prerequisites

1. Microsoft Outlook is installed on the laptop or PC.
2. A new Microsoft Outlook profile has been created for use with CRM for Microsoft Outlook.
3. The CRM for Microsoft Outlook public certificate has been installed on the relevant laptop or PC.
4. Oracle Fusion CRM for Microsoft Outlook application is installed on the relevant laptop or PC.

### Access the Synchronization Control Panel

1. Open Microsoft Outlook.
2. On the Choose Profile pop up page, select the Microsoft Outlook mail profile that you set up for use with CRM for Microsoft Outlook.
3. If prompted, enter the Oracle Fusion server connection details.
4. Right click on the CRM for Microsoft Outlook icon in the system tray and then click **Show Control Panel** to open the Synchronization Control Panel page.

### Enter the Filter Criteria for Your Data

1. For this example, select the **Country** check box on the Synchronization Control Panel page to open the Edit Criterion pop up page for the Country records, and enter the following example filter criteria:

Field	Condition	Value
Name	Like	Select a relevant country for your Oracle Fusion CRM data

2. Click **OK** on the Edit Criterion pop up page.
3. On the Synchronization Control Panel page, click **Save** and then **Close**.

## Synchronize the Oracle Fusion CRM Data

1. To initiate the synchronization, right click on the CRM for Microsoft Outlook icon in the system tray and then click **Synchronize Now!**
2. Navigate back to Microsoft Outlook and explore the data that has been synchronized from Oracle Fusion CRM. That data that is synchronized is subject to your role and security settings.

## FAQs for Define Outlook Integration

### What's a client configuration file?

In Oracle Fusion CRM for Microsoft Outlook, a client configuration file describes a part of the application configuration that resides on the user computer, and it extends the desktop application. Client configuration files can either describe a portion of the application logic implemented as Java script, or can be a declarative configuration of items, such as UI components or synchronization mappings implemented as XML. Each configuration file has a particular type. There can be more than one version of any file type at one time as long as the names differ, and only one file of any given type can be included in a deployment package.

### What's a client deployment package?

In Oracle Fusion CRM for Microsoft Outlook, a client deployment package is a collection of metadata files that describe the CRM application extensions deployed to users' computers. Access to a given deployment package is given to CRM application users through a privilege associated with their job role. When a user connects to the CRM application server to synchronize data from a desktop application like Microsoft Outlook, the application determines if any changes to the package have occurred, and if so, downloads any changes.

### What's a client configuration validation file?

In Oracle Fusion CRM for Microsoft Outlook, the client configuration validation file (.xsd) describes the structure of a valid client configuration file (.xml). The application uses the client configuration validation file to check that any client

configuration file imported to the server is structured correctly and complies with the requirements of the validation file. The validation process happens automatically during the import of any client configuration file, and helps catch misconfigured files.

### **What's a server configuration file?**

The Oracle Fusion CRM for Microsoft Outlook application uses a file to identify and map services and view objects that are used when processing synchronization requests, and to correctly query, insert, update, and delete data on the server. There is only ever one of these files used at a given time, and changes made to it are recognized by the application and loaded immediately.

### **How can I change the maximum size of an e-mail attachment that is downloaded during Oracle Fusion CRM for Microsoft Outlook synchronization?**

The default maximum size of an attachment that can be downloaded during Oracle Fusion CRM for Microsoft Outlook synchronization is 2048 kilobytes, or 2 megabytes. However, you can change the maximum attachment download size, as follows: Navigate to the Manage Client Configuration File task from the Setup and Maintenance application and export the **MetaInfo.xml** client configuration file; change the **MaxAttachSize** value to the desired maximum attachment download size (in kilobytes); create a new client configuration file with a new name and upload the edited MetaInfo.xml file; create a new client deployment package and associate the new client configuration file to the new client deployment package; then finally, activate the new client deployment package.

Note that the recommended maximum attachment download size is 5120 kilobytes, or 5 megabytes.

### **Why did a contact's default customer relationship change after synchronization?**

Changing a contact's default customer relationship is currently not supported in Oracle Fusion CRM for Microsoft Outlook, meaning that if you change the default customer relationship, and then synchronize the data, the contact's customer relationship will revert back to the default customer relationship.

### **Why can't I view the complete customer details for some of the customers associated to a contact, even though the customers are part of my sales territory?**

When synchronizing contacts with multiple customer relationships, you will only be able to have full access to the customer details of customers associated to a contact if the customer is included in the results of the criteria specified in your synchronization filter.

For example, you have a contact in Oracle Fusion CRM that is associated to two customers (Customer A and Customer B) and, because the customers are part of your sales territory, you have full access to both of the customer records in Oracle Fusion CRM. However, in your Oracle Fusion CRM for Microsoft Outlook (CRM for Microsoft Outlook) client you have a synchronization filter criteria that only returns Customer A. The result is that when you synchronize the CRM for Microsoft Outlook client using this synchronization filter criteria, all of the customer data for Customer A is synchronized, but only a restricted amount of customer data is synchronized for customer B.



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# Common CRM Configuration: Manage Mobile Sales Application Configuration

## Manage Mobile Sales Application Configuration

### Oracle Fusion Mobile Sales: Overview

The Oracle Fusion Mobile Sales application serves a critical need for mobile sales force personnel as a means to receive time-critical updates regarding the sales activities in the enterprise. For the deploying organization, one of the greatest benefits of the mobile application is increased sales representative productivity.

The main functionality and features of the application are:

- **Application home page:** The application home page provides sales representatives with access to critical information when they are out in the field making sales calls and decisions. All functional areas of the application are arranged in grid fashion on the home page, using icons for functional areas, with labels corresponding to those areas. Users touch an icon to navigate to the corresponding object.
- **Sales account management:** With access to the sales accounts in their territory while on the road, the sales representative can access reference information (for example, customer location on a map) as well as current events about the customer (for example, news headlines via RSS feeds). This information creates a sales representative who is more knowledgeable and responsive to the customer.
- **Opportunity management:** From the mobile opportunity management page, the sales representative can access current and critical information about their opportunities and quickly share opportunity updates with the sales team. From the organization standpoint, the benefits are increased accuracy of the pipeline and forecast, since sales representatives can more readily provide updated information about opportunities even while on the road.
- **Lead management:** With access to their open leads while on the road, the sales representative can more quickly act upon the leads and reduce the sales cycle time. From the organization standpoint, the benefits are increased accuracy of the pipeline, since sales representatives can more readily provide updated information about leads even while on the road.

- **Calendar and tasks:** Use of the mobile calendar and tasks allows the sales representative to view events occurring in the next two weeks, and a list of all open tasks, helping the sales representative to manage appointments and tasks on the road.
- **Contacts:** The application displays a list of key contacts, and using **Search** a sales representative can search for all contacts. Contacts can be easily phoned or e-mailed from the Actions menu in the Contact page, using the Email Contact and Call Contact feature. Contacts that do not want to be phoned or e-mailed will have the Email Contact and Call Contact features disabled.
- **Sales analytics:** Sales representatives can access business intelligence reports (current period performance and opportunity pipeline) from the home page. Analytics also are embedded contextually for each account a sales representative is viewing on the mobile application, thus providing him with useful contextual insights into his accounts. The contextual reports include data on sales account revenue trends, sales account win/loss trends, and sales account win/loss reasons.
- **Alerts:** Alerts are automatically sent out for new leads assigned to the sales representative, as well as updates to opportunities of interest.

## Implement Oracle Fusion Mobile Sales: Explained

Oracle Fusion Mobile Sales provides sales representatives with access to critical sales data and functionality using smart phones. Mobile Sales gives the field sales representative instant access to sales objects such as sales accounts, contacts, opportunities, leads, tasks, calendar, notes, and interactions. Sales representatives can access the data via the native applications on the Apple iPhone or Blackberry smartphone.

For the administrator, Oracle Fusion Mobile Sales allows complete control over what content to show on the mobile application. Administrators can choose existing or custom objects, including fields, to be displayed on the mobile phones.

### Implementation Overview

After the prerequisite of implementing Oracle Fusion Sales, Mobile Sales requires very minimal setup. Mobile Sales is built using the same technical stack as the Oracle Fusion Sales application, and therefore re-uses much of the setup from that application.

Mobile Sales is integrated with the following other Oracle Fusion products or modules:

- Oracle Fusion Sales
- Oracle Fusion Marketing
- Oracle Fusion CRM Common Components, including calendar, notes, and interactions

Mobile Sales leverages the setup from each of these components, and therefore does not need any explicit setup, except for the following areas:

- Security and authentication
- News feed sources

## Implementation Tasks

Implementing Mobile Sales involves setting profile options and, optionally, customizing the fields and objects that users can view on their mobile devices.

Set the following profile options:

- Password Save on Phone Enabled: Specifies whether users are allowed to store their login password on their mobile devices. Set to Y to allow saving, or N to not allowing saving. Allowing users to save passwords makes it easy for users to log in to the mobile application without the need to enter a password each time they access the application.
- RSS Feed Source profile options: Administrators can set up to five RSS feed sources. These sources are used to display news feeds when viewing account details on the mobile application. If using the RSS Feed profile options, also set the Number of RSS Feed URLs Configured profile option.

To view and modify the mobile application profile options, within the **Setup and Maintenance** work area, search for the **Manage Administrator Profile Values** task. Once you find the task, select **Go** to go to the task. In the Profile Options search, select **Mobile Sales** as the application, and then select the profile you want to change.

For customization purposes, Mobile Sales is integrated with the same tool used for customizing the Sales application, Oracle Fusion CRM Application Composer. A simple five-step process guides administrators through the process of configuring specific fields and objects that users can manage on their mobile devices. To customize Mobile Sales, log in to CRM Application Composer and configure Mobile Sales pages.

## Enabling the Around Me Feature: Worked Example

This example demonstrates how to enable the Around Me feature for Contacts on a smartphone. The Around Me feature uses your current location to run a proximity query on objects with location information, for example, Customers and Contacts.

Firstly you create latitude and longitude custom fields for Contacts; secondly you obtain map data from a third party, and create a script to populate the latitude and longitude custom fields; and finally you open the Oracle Fusion Mobile Sales client on a smartphone, and specify a radius for the proximity query.

### Creating Custom Fields for Latitude and Longitude Entry on Contacts

1. Navigate to the Application Composer by clicking **Navigator**, then under the Tools menu click **Application Composer**.
2. Select the **Common** application.

3. Expand the **Standard Objects** object, and then expand the **Trading Community Org Contact** object.
4. Click on the **Fields** object.
5. On the Fields page, click **Create** on the Custom tab.
6. Select **Number**, and then click **OK**.
7. On the Create Number Field page, create a Latitude field by completing the fields, as shown in this table:

Field	Value
Display Label	Latitude
Indexed	Yes
Updateable	Yes
Searchable	Yes

8. Click **Save and Close**.
9. On the Fields page, click **Create** on the Custom tab to create the Longitude field.
10. Select **Number**, and then click **OK**.
11. On the Create Number Field page, complete the fields, as shown in this table:

Field	Value
Display Label	Longitude
Indexed	Yes
Updateable	Yes
Searchable	Yes

12. Click **Save and Close**.

### Obtain Map Data from a Third-Party and Create a Script to Populate the Latitude and Longitude Custom Fields

1. Obtain a map data license from a third party, such as NAVTEQ or Google.
2. Create a custom script that will populate the latitude and longitude columns, using the map data, when an address is either added or updated.

### Specify a Radius for the Proximity Query

1. Specify a radius for the proximity query by opening the Oracle Fusion Mobile Sales client, and then tap the **Settings** button.
2. Select **Radius** and specify a radius for the proximity query in miles or kilometres.
3. Tap on **Around Me** to view the objects that have the Around Me feature, such as Opportunities, Contacts, and Customers.

4. Tap on **Contacts**, and Contacts within the specified proximity are displayed on a map.

## Mobile Sales Extensibility: Explained

Oracle Fusion CRM Application Composer lets implementors customize the Oracle Fusion Mobile Sales iPhone and Blackberry applications. Using Application Composer, implementors can manage which objects and fields are visible on Mobile Sales without having to do specific customizations for any particular device.

Implementors can manage the following for the mobile application:

- Enable for the mobile device standard Oracle Fusion Sales objects that are not enabled by default
- Enable for the mobile device custom Sales objects
- Change the fields (including custom fields) visible on Mobile Sales for mobile-enabled Sales objects (standard or custom objects)
- Change the fields (including custom fields) visible on Mobile Sales for contacts

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### Note

To customize the sales contact object model, select the **Trading Community Org Contact** object under the **Common** application in Application Composer. To expose those sales contact object model changes on Mobile Sales pages, you must select the **Mobile Contact** object under the **Sales** application in Application Composer, then select the **Pages** node on the object's navigation tree.

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To customize Mobile Sales for a given object, select the application you want to customize within Application Composer, and then select the parent object to manage. Select the **Pages** node in the navigation tree, then select the **Mobile Pages** tab to see the mobile configuration options for the parent and its child objects. For details on Application Composer, refer to the Oracle Fusion Applications CRM Extensibility Guide.

## FAQs for Manage Mobile Sales Application Configuration

### What are the supported platforms for Oracle Fusion Mobile Sales?

The Oracle Fusion Mobile Sales client is supported on the following Apple and Blackberry platforms and devices:

- The Apple mobile operating system, iOS 4.3 and above
- The following Apple mobile devices: iPhone 4, iPhone 3GS, iPhone 3G, iPod Touch

- The Blackberry mobile operating systems, 5.0 and 6.0
- The following Blackberry models: 9800, 9300, 8900, 8500, 9000, 9650, 9700, 9530, 9550

### **How can I disable the synchronization of Calendar entries and Contacts to a smartphone?**

You can disable, or enable, the Calendar and Contacts synchronization buttons on the sign out page. Navigate to Setup and Maintenance and go to the Manage Administrator Profile Values task. Search for the **Enable Calendar Synchronization** and **Enable Contact Synchronization** profile options, and set the options to either Y (to enable synchronization) or N (to disable synchronization). The default profile option values are set to Y.

### **How can I change the default filter criteria for contacts, customers, and opportunities that are displayed on mobile devices, such as a Blackberry or iPhone?**

Navigate to the Application Composer; find the Sales object, such as Contact or Opportunity, that you want to alter the default filter criteria for, and expand the view of the Sales object. Click on **Pages** and then the **Mobile Pages** tab. Edit the Sales object, and select the desired **Configure Filter for List View** option.

### **How do I install the Oracle Fusion Mobile Sales Blackberry Application?**

Ensure the Blackberry's Wi-Fi is on, then using the Blackberry's browser, enter the following URL: `http(s)://host:port/sales/faces/MobileInstallerMain` (the word 'host' should be replaced with the location of where the Oracle Fusion CRM application is deployed). Enter the authentication credentials to sign in, and click **Start Download** to start the download and installation.

### **How can I add an Oracle Business Intelligence report to Oracle Fusion Mobile Sales?**

### **How can I display a list of Products for a Revenue Item?**

### **How can I set up the automatic saving of passwords on users' smartphones?**

### **What happens if I customize an Oracle Business Intelligence report that is displayed by Oracle Fusion Mobile Sales?**

### **Why can't I access Oracle Fusion CRM Mobile Sales?**

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# Common CRM Configuration: Manage Tablet Application Configuration

## Manage Tablet Application Configuration

### Oracle Fusion Tap: Highlights

Oracle Fusion Tap enables you to use a tablet device to complete day-to-day sales and human resources tasks, and review key business information.

For example, HR professionals can use Oracle Fusion Tap to:

- Monitor business critical performance indicators, receive alerts, and drill down to details accessed through integration with real-time business intelligence
- Compare workers, no matter where they are in the organization, by simply tapping on them in the interactive organizational chart
- Obtain a true view of workers by blending human resource information with job specific information
- Export a peer, their peers, and their direct reports with a single tap on a contact list

Sales managers and executives can use Oracle Fusion Tap to view key performance indicators and obtain an accurate view about how the business is performing. Salespeople can also:

- Access contacts, accounts and opportunities when out of the office
- Identify key contacts and collaborate with sales co-workers
- Browse interactive sales catalogs to discover, present, and compare products
- Log sales activities and notes quickly and easily

#### Oracle Fusion Tap Capabilities and Installation

- End users can learn about Oracle Fusion Tap capabilities and installation. See: Oracle Fusion Tap Capabilities and Installation document (1430761.1) on My Oracle Support at <https://support.oracle.com>

## **Extensibility**

- Administrators can learn how to configure the different page displays for opportunities on tablet devices. See: Oracle Fusion Tap Extensibility (1430783.1) on My Oracle Support at <https://support.oracle.com>

## **See Also**

- You can view more details about extensibility options and capabilities across all Oracle Fusion applications.

See: Oracle Fusion Applications Extensibility Guide

- You can access more implementation information for Workforce Deployment.

See: Oracle Fusion Applications Workforce Deployment Implementation Guide

- You can access more Sales implementation information.

See: Oracle Fusion Applications Sales Implementation Guide

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# Common CRM Configuration: Set Up Customer Center

## Set Up Customer Center

### Customer Center: Explained

Oracle Fusion Customer Center enables the comprehensive management of customer information. Customer Center collects data from various systems and presents them for management in one location.

Following are some of the capabilities of Customer Center:

- Create customers and contacts
- Update customers and contacts
- Maintain customer hierarchies
- Maintain competitor information

When working with Customer Center, be aware of the following terminology used through out the application:

- Sales prospect
- Sales account
- Customer
- Legal entity
- Billing account

#### **Sales Prospect**

A sales prospect is a prospective sell-to entity, or person, at an existing or potential customer used to define Leads. A prospect is the lowest level representation of a business entity that your company's marketing processes will track and act upon. The sales prospect does not have a sell-to address. You can create a sales prospect from a party that does not have a sell-to address when you create the first lead for that party. You can also create sales prospects in Customer Center and by importing them in bulk.

You can create leads against sales prospects, but a sales prospect must be qualified and converted to a sales account before you can create opportunities

for it. To qualify and convert a sales prospect, a set of business criteria or rules must be satisfied. For example, the prospect may be required to meet the criteria for account assignment.

### **Sales Account**

A sales account is a specific sell-to entity within a given customer. You can create leads and opportunities against sales accounts. A single customer might have a collection of sales accounts. To avoid confusion when assigning territories to the account, each sales account has only one sell-to address. Typically, a sales team manages a sales account. The sales team is comprised of resources assigned to the territories associated with the sales account. Additionally, a profile option determines whether a sales account is a named sales account, an existing sales account, and the account owner. Named sales accounts are typically strategic accounts assigned to dedicated territories. An existing sales account is one where there is an existing financial relationship or had previous installs. You can create sales accounts in Customer Center and by importing them in bulk.

### **Customer**

Within Customer Relations Management (CRM), sales accounts and sales prospects are collectively referred to as Customers. There are three types of customers: Organization, Person, and Group. Additionally, a Customer also can have representations as a legal entity and a billing account that are expressed as root nodes in a hierarchy to the respective sales accounts for that customer.

View the Customer Hierarchy: A customer's hierarchy represents a holistic view of the customer's structure, showing you the customer type, the parent for the customer, the subsidiaries of the customer, as well as rolled up revenue analysis data.

### **Legal Entity**

A legal entity is a party that can enter into legal contracts or a business relationship, and be sued if it fails to meet contractual obligations. There are two types of legal entities: internal and external. A customer with a party usage of Legal Entity is considered an internal legal entity and is used for interdivisional selling within your own company. A customer with a party usage of External Legal Entity is any external customer who fits the definition of legal entity. Legal entities may also be used to group multiple sales accounts, sales prospects and other classes of entities or parties.

### **Billing Account**

A billing account is a party that represents the financial account transactional entity for a given Customer.

## **Customer Center Trees: Explained**

There are two types of Oracle Fusion Customer Center trees. Each tree displays a different set of nodes based on party type. The information that you are able to view and edit on each node depends upon your security privileges and your membership status on the sales account team

The two types of Customer Center trees are:

- Customer Tree
- Contact Tree

### **Customer Tree**

The customer tree displays similar nodes for the three customer types, organization, person, and group, such as Profile, Contacts, Sales Account Team, or Assessment. If you are a member of the sales account team with at least Edit level access or you have the Sales Party Administration duty, you can update information on the following nodes: contacts, organization chart, classifications, assessments, classifications, assessments, notes and, account assessments. Only those users with Sales Party Administration duty or Full level access on the sales account team and profile nodes can update the members of the sales account team

### **Contact Tree**

The contact tree displays nodes for contacts with the contact profile and other related information such as the Profile (contact details), interactions with the contact, notes, and so on. Leads and Opportunity applications can be accessed here. All nodes on the contract tree are visible to all users.

## **Manage Customer Center Trees: Explained**

Customer center tree is a navigation paradigm which enables quick and easy access to various related information in one central place. Seen on the regional area of the page, the tree is made up of object nodes such as Profile or Contacts. These object nodes can be categorized into logical categories. Categories enable you to organize those object nodes to fit your needs, for example, the Sales category or Service category. Each implementation can customize the Customer Center tree by showing or hiding the various nodes as required, and configuring node names and other parameters. When saved, the personalizations for this view of the tree are kept for all users of the application. Individual users will have capability to further personalize the tree as desired.

### **Managing Customer Center Trees**

Set these attributes for each node in the Customer Center Tree:

- Name - the name shown in the customer center tree UI.
- Visible - indicates whether the node will be visible in the customer center tree.

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#### **Important**

All tree nodes that render portlets are delivered with the Visible check box unselected. To show the portlet, select the Visible check box.

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- Default - the node shown when a user drills down into the customer center tree.
  - Portlet - indicates whether the node is a portlet or a local task flow. A portlet is a non-local task flow residing in another business process.

For example, when accessing the Opportunities node in the Lead Management application, the Opportunities node is a portlet because the Opportunities task flow resides in the Sales applications, outside of the local Lead Management application. Each Fusion application using Customer Center is delivered with the appropriate portal information already configured and should not be changed. All tree nodes that render portlets have the 'Visible' flag turned off. If the portlet is required to be visible, the 'Visible' flag needs to be changed to show the node.

- Parameters - specify input variables and values for the node. There are only three nodes that require parameters. These nodes are specifically for third-party integration: OneSource Profile, Service Requests, and Snapshot:

- **OneSource Profile parameters:** `token=#{'{OneSource token}'}`

Replace `{OneSource token}` with your OneSource access token. For example, if your OneSource token is 'token', set the OneSource Profile parameter as: `token=#{'token'}`. Or, if you do not require a token to access OneSource, simply replace `{OneSource token}` with `NULL`; set the OneSource Profile parameter as: `Token=#{''}`

- **Service Requests parameters:** `HostName=#{'{Siebel server path}'}`; `SSLEnabled=#{'[true|false]'}`; `UserName=#{'{username}'}`; `Password=#{'{password}'}`; `SystemName=#{'{reference system name}'}`

1. Set host name to be your Siebel server path, for example, `HostName=#{'hostname.siebel.com/ CALLCENTER_enu/start.swe'}`
2. Set SSLEnabled to true or false, for example, `SSLEnabled=#{'false'}`.
3. Set UserName to be your Siebel system login, for example, `UserName=#{'USER'}`.
4. Set Password to be your Siebel system password, for example, `Password=#{'PWD'}`.
5. Set System Name to be your source system name as defined in the Original System References mapping table, for example, `SystemName=#{'SIEBEL'}`. The default value is 'SIEBEL' if this parameter is not specified.

Example Service Requests parameter:

```
HostName=#{'hostname.siebel.com/CALLCENTER_enu/
start.swe'};SSLEnabled=#{'false'};UserName=#{'USER'};Password=#{'PWD'};System
Name=#{'SIEBEL'}
```

- **Snapshot node parameter:** `HostName=#{'{Siebel server path}'}`; `SSLEnabled=#{'[true|false]'}`; `UserName=#{'{username}'}`; `Password=#{'{password}'}`; `SystemName=#{'{reference system name}'}`

The Snapshot node parameter is the same as the Service Requests node and thus needs the same parameters as those for the Service Requests node.

# Managing Contacts: Explained

Any person can be a contact. That person need not be related to any customer. For example, a sales person may meet an early stage contact in an airport or conference and wants to follow up with that person, the contact, as a prospective customer. A person who is a contact can be related to one or more customers such as a regional purchasing agent for multiple sales accounts. A person may also be both a customer as well as a contact of another customer.

You can manage your contacts several ways:

- Create Contact
- Manage Contacts
- Edit Contact: Profile
- Edit Customer: Contact

## Create Contacts

Select Create Contact in the regional area to create a new person with an optional organizational or customer relationship. When creating a new contact, existing contacts are checked for duplicate entries. If there is a match, you can choose from the duplicate or continue creating the new person. You can also use Quick Create Contact located in the Regional area.

## Manage Contacts

Manage Contacts enables you create new contacts and to search for existing contacts with customer relationships and edit them. To edit a contact, highlight the record for the contact in the search results and click the edit icon, or click the last name in the search results. You can also navigate to the customer page for that contact by clicking the company name. You can designate a contact as a key contact here. My Key Contacts is a setting used by the saved search of the same name to list only those contacts that are important to you.

## Edit Contact: Profile

The Edit Contact: Profile page gives a complete picture of the contact including all the customer relationships and the contact points associated with this contact. You can designate a contact point, such as phone or e-mail, as primary for the contact. For example, the contact may have two cell phones and you can designate one as the primary means to communicate with the contact. When you create a contact and add multiple contact points of a type, the first contact point associated with a customer relationship is defaulted as the primary contact for the relationship. Contact point information is available for additional names, addresses, phones, e-mails, instant message accounts, and web addresses. The Primary by Customer Relationship designation means that a contact point has been designated the primary method of communication to the customer for this contact. The Primary by Customer Relationship is set, and can only be edited, in the Edit Customer: Contact UI.

## Edit Customer: Contact

The Edit Contact: Profile page gives a complete picture of all the contacts for the selected customer. You can manage contact information for the individual

contact here in the context of the specific customer relationship. Contact points marked as primary here will be seen as Primary by Customer Relationship in the Edit Contact UI. This means the contact point has been designated the primary means to communicate with this customer contact. Changes made here will be reflected in the Edit Contact: Profile page.

## Managing Contact Preference Information: Explained

Managing contact preference information includes creating and editing preferences about contact permissions and restrictions.

### Creating Contact Preference information

You create contact preference information from the Oracle Fusion Customer Center application. When you are viewing Address or Contact Point information for a customer or contact, you can select a specific address or contact point, and choose Manage Contact Preferences from the Action menu. You capture whether there is a restriction (Do not) or permission (Do) in the Preference attribute, and a Reason Code for such preference. You record a specific start date and can set an end date for the preference. The application is delivered with the start date set to the current date, and the end date to null.

### Reviewing Contact Preference Information

On seeing the Do Not Contact icon, you must review contact preference information for restrictions before taking any action. You can review the contact restriction information by clicking either on the Do Not Contact icon or on the appropriate option from the action menu. Note that do not contact entries are made against each phone, E-mail, and address and not at the organization or person level. If restrictions are present for a phone number, the click-to-dial action is disabled.

### Privileges Required for Managing Contact Restriction Information

Contact restriction information, such as opting in or out of the Public Do Not Call Registry, is captured as a Reason Code. Regular business users, such as sales representatives and managers, can create and edit contact preference information with any Reason Code that is not identified as Legal. However, to be able to create and edit contact restriction information using a Reason Code that is tagged as Legal, you require the Legal Contact Preferences Management duty role. This duty role is available only to the users with application administrator roles, such as, a Sales Administrator.

A Reason Code can be setup as Legal by tagging the Reason Code lookup value in the lookup type REASON\_CODE with the value LEGAL using Manage Trading Community Common Lookups task.

## Sales Account Team Member Access Level: Explained

There are three types of sales account team memberships known as access levels.

These access levels control the team member's privileges for the sales account:

- View Only
- Edit
- Full

When a resource is initially added to the sales account team, a profile option setting determines the member's default access level. If that member is removed from the sales account resource team, she no longer has access to the sales account, unless she is still a member of a territory that is assigned to the sales account. Resources in the management hierarchy of a newly added team member inherit the same access level of the subordinates.

### **View Only**

View Only is the minimum level assigned to a sales account team member. This access level enables the team member to view the contents of the sales account child attributes such as sales account team, snapshot, assessments, discussion forums, notes, interactions, appointments, and tasks. This assumes, however, that the team member also has functional access to view that child attribute. If the team member's resource role does not provide functional access to view a particular child attribute of a sales account, that member cannot view the attribute, regardless of her sales account team access level. A team member with View Only access level for a sales account can view only the opportunities, leads, and revenue lines to which she has relevant data privileges.

### **Edit**

Sales account team members with the Edit access level can view and edit all customer-related objects. They can view and edit only the opportunities, leads, and revenue lines to which they have the relevant data privileges. The Edit access level provides a sales account team member with the ability to run the territory reassignment process, but she cannot change the composition of the sales account resource team.

### **Full**

The Full access level allows team members to do everything that the Edit access level allows, with the addition of being able to change the composition of the sales account resource team. A team member with Full access can manually add and remove team members, change a member's access level, and mark the lock assignment setting for team members. When a sales account is created, only the sales account owner and sales administrators are granted the Full access level, but they can grant Full access to other team members.

## **Sales Account Territory Member Access: Explained**

Access for the Territory owners and members parallels that of the Sales Team members.

These access levels control the internal and partner territories privileges for the sales account:

- Internal territory owner: Full access

- Internal territory members (non-owner): Edit access
- Partner territory owner and members: View-only access

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**Note**

Territory Management must be implemented to utilize this feature.

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## Third-Party Integrations in Customer Center: Explained

Oracle Fusion Customer Center is a central location to access a comprehensive and multifaceted view of customer information. It unifies Fusion applications data as well as relevant third-party content.

### Third-Party Integrations in Customer Center

OneSource and Siebel Service are two third-party integrations readily configured in Customer Center. This topic explains how third-party customer content is mapped to Fusion customer.

- **OneSource to Fusion Mapping**

OneSource, an online source of business and company data, can be accessed directly from the OneSource node in Customer Center.

Customer Center conducts searches for OneSource company data in the following order:

- a. Look up based on mappings defined in `HZ_ORIG_SYS_REFERENCES` table where `orig_system` is `ONESOURCE`.
- b. Look up based on Fusion customer stock symbol. This is checked if mapping is not found in `HZ_ORG_SYS_REFERENCES`.
- c. Look up based on Fusion customer name. This is checked if mapping is not found by stock symbol lookup. If there are multiple OneSource companies match the Fusion customer name, user can choose from the list of matching OneSource companies.

- **Siebel Service to Fusion Mapping**

Mappings for Siebel accounts to Fusion customers are maintained in the `HZ_ORIG_SYS_REFERENCES` table, where `orig_system` is `SIEBEL`.

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**Note**

Customer Center does not include licenses for OneSource and Siebel applications. Third-party application licenses may be acquired separately. If you want to enable OneSource and you have a web proxy for external HTTP(S) traffic, you must select Enable Web Proxy on the Web Proxy Configuration screen and specify your web proxy configuration.

**See Also:** "Web Proxy Configuration" in the chapter "Creating a New Provisioning Plan" of the Oracle Fusion Applications Installation Guide

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# Customizing Oracle Fusion CRM Pages Using Oracle Composer: Explained

You can customize most pages in Oracle Fusion CRM using Oracle Composer. To access Oracle Composer, navigate to one of the pages available for customization and select to customize the page from the **Administration** menu in the global area.

## Available Customization Options

When you select to customize a page from the **Administration** menu in the global area, you launch Oracle Composer.

The customizations that you make are applied based on your layer selection:

- Site  
Your customizations are visible to all users.
- Job Role  
Your customizations are visible to users who have the selected job role.
- External or Internal  
Depending on your selection, your customizations are visible to either external or internal users. External users could be your partners or anonymous users. Internal users could be your employees.

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### Note

Users can customize their own dashboard pages by selecting Edit Current Page from the Personalization menu. Such customizations are visible only to the user who made the change.

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## Available Customization Tasks

Oracle Composer uses two different modes of Design View. The first mode, Design View: Standard mode, is selected by default in all CRM pages when opening a page with Oracle Composer with the Design tab selected. The second mode, Design View: Direct Selection mode, is activated when you click the Select tab for the UI page you want to customize.

With the Design View: Direct Selection mode, you can select and edit UI components such as form fields and table columns. In Direct Selection mode, selectable UI components become apparent when you move your cursor over the UI component. Selectable UI components are highlighted and can be edited. In CRM, Direct Selection mode is available when you customize pages, but not when you personalize a dashboard page.

Examples of UI components exposed in Design View: Direct Selection mode are:

Fields (for example an input text field)

- Show component (boolean attribute)
- Read only (boolean attribute)

- Required (boolean attribute)
- Label

UI container (for example, form container)

- Show or hide child components (for example, fields in the form)
- Reorder child components (for example, reorder fields in a form)

UI components can be protected from update to preserve the product business logic (for example, a field is read only or not based on a security privilege already defined in the application). If protected from update, the UI components are grayed out and cannot be changed.

This table describes how you can use each mode of Oracle Composer to customize dashboard pages and other select pages\*.

Customization Tasks	Design View - Standard mode	Design View - Direct Selection mode
Add content (Business Intelligence reports, CRM portlets such as Calendar)	Yes	No
Delete region	Yes	No
Move region	Yes	No
Change page layout (for example, change a two column layout to three column layout)	Yes	No

\*Examples of such pages are: Partner Public Profile page, Partner Landing page, Partner Registration page, Opportunity Overview, Customer Snapshot node, and Overview Analysis tab.

This table describes how you can use each mode of Oracle Composer to customize transactional pages (all other non-dashboard pages).

Customization Tasks	Design View - Standard mode	Design View - Direct Selection mode
Default region state (open or close)	Yes	No
Manage saved searches (create and edit)	Yes	No
Hide or show field	No	Yes
Change field label	No	Yes
Make field required or not	No	Yes
Make field read-only or updateable	No	Yes
Reorder fields in a form	No	Yes
Reorder table columns	Yes	Yes
Hide or show table columns	Yes (end users can optionally display columns at runtime)	Yes (end users cannot display columns at runtime)
Set table column width with the mouse	Yes	No

Set table column width and minimum width in percent or pixels	No	Yes
Make column sortable or not	No	Yes

### Customization Privileges Required

The following are examples of job roles that must be assigned to you before you can make customizations using Oracle Composer:

Application	Duty Role	Job Role
CDH	Master Data Management Application Administrator	Master Data Management Application Administrator
Sales Catalog	Sales Catalog Administrator Duty	Sales Catalog Administrator
Sales	Sales Administrator Duty	Sales Administrator
Marketing	Marketing Operations Manager Duty	Marketing Operations Manager
PRM	Channel Administrator Duty	Channel Administrator
PRM	Channel Partner Portal Administrator Duty	Channel Partner Portal Administrator

Contact your security administrator for details.

## Customizing Oracle Fusion Customer Center Pages: Explained

You can customize a variety of pages and regions in Oracle Fusion Customer Center using the Oracle Fusion CRM Application Composer. The Application Composer lets you create custom fields and objects, which you then add for display in the runtime Customer Center application. To access the Application Composer, select **Application Composer** from the Navigator menu, under the Tools category.

### Customizing Oracle Fusion Customer Center Pages Using the Application Composer

In general, every top-level CRM object has a work area, which includes an overview page, a creation page, and a details page. When you make changes to the object, those changes can be reflected in the object's associated work area. Customer Center, however, is unique in that its user interface pages do not include the traditional work area combination of overview page, creation page, and details page. Instead, Customer Center has a series of tree nodes that, when selected, display user interface pages, and even a single page can be associated with multiple business objects.

This table lists Customer Center pages, and the related objects that you can access in the Application Composer to customize those pages.

Customer Center Page	Customer Center Region	Application	Underlying Business Object
Consumer Profile	Addresses region	Common	Trading Community Address

Consumer Profile	Consumer Basic Information region	Common	Trading Community Person Profile
Consumer Profile	Consumer Details region	Common	Trading Community Person Profile
Consumer Profile	Sales Account region	Customer Center	Sales Account
Contact Profile	Address region	Common	Trading Community Address
Contact Profile	Basic Information region	Common	Trading Community Org Contact
Contact Profile	Contact Details region	Common	Trading Community Org Contact
Contact Profile	Contacts region (also known as the Contacts List)	Common	Trading Community Org Contact
Create Consumer page and also the Quick Create Consumer page	New fields are added at the bottom of the page	Customer Center	Sales Account
Create Consumer page and also the Quick Create Consumer page	No specific region	Common	Trading Community Person Profile
Create Contact page and also the Quick Create Contact page	No specific region	Common	Trading Community Org Contact
Create Customer page and also the Quick Create Customer page	Contact Information region	Common	Trading Community Org Contact
Create Customer page and also the Quick Create Customer page	Customer Information region	Common	Trading Community Org Profile
Create Customer page and also the Quick Create Customer page	New fields are added at the bottom of the page.	Customer Center	Sales Account
Customer Profile	Addresses region	Common	Trading Community Address
Customer Profile	Basic Information region	Common	Trading Community Org Profile
Customer Profile	Customer Details region	Common	Trading Community Org Profile
Customer Profile	Sales Account region	Customer Center	Sales Account
Edit Customer page	Team Members region	Customer Center	Sales Account Resource (child object to the Sales Account)
Overview > Summary tab	Sales Accounts region (also known as the Sales Account List)	Customer Center	Sales Account
Real-Time Search: Customers page	Search region, by way of Advanced Search > Add Fields	Customer Center	Sales Account

---

**Note**

To make only minor user interface changes to Customer Center pages without creating new objects or fields, use Oracle Composer instead of the Application Composer.

## Oracle Fusion Common CRM Objects

The Oracle Fusion Common CRM objects that are associated with Customer Center pages are:

- Trading Community Org Profile
- Trading Community Person Profile
- Trading Community Address
- Trading Community Org Contact

This table indicates which Common objects populate which Customer Center pages and regions, as well as the Application Composer configuration pages where you can make user interface changes on those pages and regions.

Business Object	Configuration Page in Application Composer	Related Customer Center Page	Related Customer Center Region
Trading Community Org Profile	Edit Customer Quick Creation Form	Create Customer page and also the Quick Create Customer page	Customer Information region
Trading Community Org Profile	Edit Read Only Form	Customer Profile	Basic Information region
Trading Community Org Profile	Edit Details Form	Customer Profile	Customer Details region
Trading Community Person Profile	Edit Contact/Consumer Quick Creation Form	Create Consumer page and also the Quick Create Consumer page	No specific region
Trading Community Person Profile	Edit Read Only Form	Consumer Profile	Consumer Basic Information region
Trading Community Person Profile	Edit Details Form	Consumer Profile	Consumer Details region
Trading Community Address	Edit Detail Form	Customer Profile	Addresses region
Trading Community Address	Edit Detail Form	Contact Profile	Addresses region
Trading Community Address	Edit Detail Form	Consumer Profile	Addresses region
Trading Community Org Contact	Edit Creation Form	Create Customer page and also the Quick Create Customer page	Contact Information region
Trading Community Org Contact	Edit Creation Form	Create Contact page and also the Quick Create Contact page	No specific region
Trading Community Org Contact	Edit Read Only Form	Contact Profile	Basic Information region
Trading Community Org Contact	Edit Contact Details Form	Contact Profile	Contact Details region

Trading Community Org Contact	Edit Summary Table	Contact Profile	Contacts region (also known as the Contacts List)
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## Oracle Fusion Customer Center Objects

The Oracle Fusion Customer Center objects that are associated with Customer Center pages are:

- Sales Account
  - Sales Account Resource (child of the Sales Account)

This table indicates which Customer Center objects populate which Customer Center pages and regions, as well as the Application Composer configuration pages where you can make user interface changes on those pages and regions.

Business Object	Configuration Page in Application Composer	Related Customer Center Page	Related Customer Center Region
Sales Account	Edit Creation Form	Create Customer page and also the Quick Create Customer page	New fields are added at the bottom of the page.
Sales Account	Edit Creation Form	Create Consumer page and also the Quick Create Consumer page	New fields are added at the bottom of the page.
Sales Account	Edit Details Form	Customer Profile	Sales Account region
Sales Account	Edit Details Form	Consumer Profile	Sales Account region
Sales Account	Edit Summary Table	Overview, then Summary tab	Sales Accounts region (also known as the Sales Account List)
Sales Account	Not applicable. Custom fields are automatically available from the list of additional fields.	Real-Time Search: Customers page	Search region, by way of Advanced Search, then Add Fields
Sales Account	Edit Regional Panes	Customer Work Area	Panes in the regional area
Sales Account Resource (child object to the Sales Account)	Edit Summary Table	Edit Customer: Sales Account Team page	Team Members region

## Using the Pages Overview Page

To add custom fields to the Customer Center pages listed in the tables above, use the Application Composer's various configuration pages. You access the configuration pages in the Application Composer from each object's Pages Overview page. Before you access the configuration pages, you must have already created your custom fields using the Application Composer.

To access the Pages Overview page:

1. Select either the **Common** or **Customer Center** application on the main Overview page.
2. In the object tree, select the object you want to customize.

3. Select the **Pages** node.
4. On the Pages Overview page, select the configuration page hyperlink related to the Customer Center page that you want to customize.

### **Adding Custom Reports Using Oracle Composer**

The customizations that you can make in Customer Center also include the creation of reports. This type of customization does not involve the creation of new fields or objects within the Application Composer. Instead, create a report using BI Answers, save the report to the Resource Catalog, and then use Oracle Composer to add the report to two pages: the Customer Snapshot and the Customer Overview, Analysis tab.

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#### **Note**

The reports that you add to the Customer Snapshot are within the context of a single customer, because you view a single customer when viewing the Snapshot. The reports that you add to the Analysis tab on the Customer Overview provide context across multiple customers, because you are viewing multiple customers on the Analysis tab.

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## **FAQs for Set Up Customer Center**

### **When do territories get assigned to sales accounts?**

Internal territories get assigned to sales accounts in the following scenarios.

- When sales accounts are created.
- When a sell-to address is added to an existing sales party.
- When sales accounts are imported in bulk.
- When certain attributes on sales accounts that correspond with territory assignment dimensions are updated.
- When batch assignment is run.
- When you select the Assign Territories menu action on the Sales Account Team node for the sales account
- When territories are realigned or when personnel leave the territory or the company.

---

#### **Note**

The following profile options determine whether territory assignment and reassignment is automatic for sales accounts. The default setting for both is YES.

- Sales Account Automatic Assignment on Create Enabled
- Sales Account Automatic Assignment on Update Enabled

Automatic assignments are always enabled following an import, party merge and territory realignment.

During initial implementation and migration, it is possible to create sales accounts before territories have been set up in the system. These sales accounts will not receive any territory assignment because there are no territories. These accounts need to be explicitly assigned when territories are configured and activated in the system. This is one exception which does not have immediate/automatic assignment. The recommendation is to run a batch assignment to assign these sales accounts created at the beginning of the implementation using the view criteria `SalesAccountsUpdatedSinceVC`.

---

Partner territories get assigned to sales accounts in the following scenarios.

- When a partner-generated lead is approved, all partner territories associated to the partner-generated lead are automatically assigned to the sales account.
  - Users with the privilege Manage Sales Party Partner Territory can assign partner territories from the sales account team UI.
- 

#### Note

Territory Management must be implemented to utilize this feature.

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### How can I make merge requests?

A merge request is made when duplicate records that point to the same customer are found, and you want to consolidate those records into one. When a merge request is approved, there is one survivor record. All other duplicate records are considered victims, and they are marked with the status of Merged. In customer center, you can mark two or more customer records for merge request from customer list in the Customer home page or in the customer search result. Merge requests will be processed by the customer data hub. The customer data hub must be implemented and the profile option Merge Request Enabled set to YES for this feature to be available.

### What's the difference between an internal territory and a partner territory?

An internal, or deploying company, territory is defined, created, and assigned internal resources.

Examples of two internal territories are:

- Sales Representative Territory (SRT) is the jurisdiction of responsibility of a sales representative over a set of sales accounts, leads and opportunities.
- Lead Triage Territory (LTT) is the jurisdiction of responsibility of channel manager to triage partner Leads, that is approve leads and route to the right Partner.

A Partner territory is the jurisdiction of the reselling partner and contains partner resources. Specific Partner territories can be assigned to a sales account as needed.

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**Note**

Territory Management must be implemented to utilize this feature.

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### **How can I add territories to a sales account?**

Assignment Manager (part of Oracle Fusion Work Management) is used to determine matching territories for a given sales account. A sales account can also be assigned to one or more internal and partner territories.

All internal territories, such as Prime, Overlay and Sales Channel Manager territories, which match a given sales account's assignment attributes are assigned to the sales account. Internal territory assignment can be run immediately and automatically whenever sales account assignment or reassignment is required. For example, you can run assignment manager when a sales account is created or updated, or when territories are realigned. Internal territory assignment can also be scheduled to run in a batch, or it can be run on-demand via the Assign Territories action in the sales account team page.

Partner territories are applicable to Partner Relationship Management implementations. When a partner lead is approved, any partner territories associated to the lead are automatically assigned to the lead's sales account. Channel sales manager can also select specific partner territories to assign to a sales account via the Add Partner Territories action in the sales account team page.

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**Note**

Territory Management must be implemented to utilize this feature.

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### **How can I personalize the customer center tree?**

Personalizing the Oracle Fusion Customer Center tree enables you to have a more intuitive navigation experience. The tree, located in the regional area of the page, is made up of object nodes such as Profile or Contacts. To personalize the tree, use the Action menu located directly above the tree or right click on any tree node, and click Manage Customer Tree in the menu popup. The Manage Customer Tree window will pop up. Select the node you wish to modify. You can change the name, whether the node is visible or not and if it should be the default node that will display upon opening the tree. When you save, the customization will be associated to your user name.

# Manage Customer Center Task Templates

## Turning a Business Process into a Task Template: Example

This example illustrates how to create a task template that represents a business process.

### Scenario

A sales manager wants to create a task template for her department's client product demonstration process.

### Client Product Demonstration Activities

The client product demonstration process occurs regularly. The sales manager does not want to manually create tasks for this process every time it occurs, so she decides to create a task template that includes the business process activities. Each time she repeats the business process, she can use the task template to automatically generate the appropriate tasks that need to be performed.

### Analysis

The business process consists of the following activities:

- Book a conference room.
- Create an agenda.
- Confirm the date and time with the client.
- Make arrangements with presenters.
- Deliver product demonstration.
- Follow up with client.

Based on the analysis of the business process, the following task template is created:

Task Template Name: Client Product Demonstration

Task	Category	Lead Days	Duration Days
Book conference room	Preparation	1	1
Create agenda	Preparation	1	1
Confirm date and time with client	Call	5	1
Schedule presenters	Preparation	5	2
Deliver demonstration	Demonstration	7	1
Follow up with client	Call	10	1

## Configuring Assignment Manager: Critical Choices

Assignment is the process for selecting a candidate as an object and executing the association to a work object. Assignment consists of two phases. The first phase is the matching phase, where matching rules or mappings are evaluated to find the right assignees from a list of possible candidates. The second phase is the disposition phase, where the disposition, or assignment, of matching candidates is handled. Assignment Manager is the tool used to establish the business objects that require assignment, and to create the rules and mappings that dictate the selection and assignment of resources and territories. Candidates are potential assignees for a work object. A work object is a representation of an application business object inside Assignment Manager. A work object captures the attributes of a business object and associated child objects to be used for matching purpose. To best plan the configuration of Assignment Manager, you should consider the following points:

- Business objects
- Attributes
- Resources and territories
- Assignment disposition
- Mappings sets and mappings
- Rules

### Business Objects

A business object is a data entity or a collection of data treated as a unit, such as a sales account, an opportunity, or a lead. Any business object that requires the assignment to act upon it is considered a work object by Assignment Manager. The work object is a representation of the business object, and mappings and rules are developed to ensure timely and accurate assignment of candidates (for example, territories or resources) to those work objects. When configuring Assignment Manager, carefully consider which of your business objects require assignment, and create work objects only for those that do.

A set of business or assignment objects is seeded for the assignment of territories or resources to sales accounts, opportunities, and leads.

### Assignment Disposition

After you determine the business objects (work objects) that require assignment and the candidate objects that you will assign to them, you must decide how the matching candidate assignment disposition will be carried out. Consider these questions:

- Do you want to assign a single resource or multiple resources?
- Do you want to automatically assign matching candidates or run custom logic against matching candidates?

- Do you want to record the matching candidate score on the work object?
- Do you want to retain manually assigned candidates when assignments are processed?
- Do you want to replace disqualified candidates when assignments are processed?

## Attributes

To ensure that candidates are properly assigned to work objects, create mappings and rules. These mappings and rules employ attributes to determine the best assignments. As you set up work objects and candidate objects in Assignment Manager, also select the attributes of those objects that you want to use in your mappings and rules. For example, you might want to assign a resource such as a specific sales representative to a business object, such as opportunity, based on the risk level of the opportunity. In this case, when you create the opportunity work object and the sales representative candidate object, you will select the attribute of opportunity that corresponds with risk level, and the attribute of the sales representative that corresponds with skill name or e-mail address. Selecting these attributes makes them available for mappings and for conditions on your rules, so ensure that you select the attributes that reflect the criteria that you want to use for matching candidate objects to work objects.

## Mappings Sets and Mappings

Assignment mapping sets and their related mappings drive territory-based assignment. The mapping sets determine the sequence of mappings and which mappings are used in territory-based assignment. The mappings identify the dimensions, attributes, and territory filtering used in the assignment processing. Default mapping sets and their related mappings are seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Create the mappings using the work objects, candidate objects, and attributes that you already established. When designing your mappings, carefully consider the dimensions and attributes you use in your territory structure and how you want to match these territory candidates to work objects.

## Rules

Rules are defined for the execution of rule-based assignment. Rules are designed to return candidates based on whether these candidates match a set of criteria, are within a defined scoring range, or are of a specific classification.

Create the rules using the work objects, candidate objects, and attributes that you already established. When designing your rules, carefully consider how you want to match candidates to work objects. For example, would you want resources assigned based on their geographic location, their product knowledge, on the status or score of an object, or a combination of any of these attributes? Do you want to match candidates only, or would you like to match candidates and score them? In a multiple-candidate scenario, do you want to assign all matching candidates or only those who achieve higher than a specific score? Consider these questions before creating rules.

## FAQs for Manage Customer Center Task Templates

**How can I create a task template that is available to associate with assessment templates?**

Create the task template with a subtype of Assessment.

## Manage Customer Center Note Type Mapping

### Defining Notes: Points to Consider

A note is a record attached to a business object that is used to capture nonstandard information received while conducting business. When setting up notes for your application, you should consider the following points:

- Note Types
- Note Type Mappings

#### Note Types

Note types are assigned to notes at creation to categorize them for future reference. During setup you can add new note types, and you can restrict them by business object type through the process of note type mapping.

#### Note Type Mappings

After note types are added, you must map them to the business objects applicable to your product area. Select a business object other than Default Note Types. You will see the note types only applicable to that object. If the list is empty, note type mapping doesn't exist for that object, and default note types will be used. Select Default Note Types to view the default note types in the system. Modifying default note types will affect all business objects without a note type mapping. For example, you have decided to add a new note type of Analysis for your product area of Sales-Opportunity Management. Use the note type mapping functionality to map Analysis to the Opportunity business object. This will result in the Analysis note type being an available option when you are creating or editing a note for an opportunity. When deciding which note types to map to the business objects in your area, consider the same issues you considered when deciding to add new note types. Decide how you would like users to be able to search for, filter, and report on those notes.

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#### Note

Extensibility features are available on the Note object. For more information refer to the article [Extending CRM Applications: how it works](#).

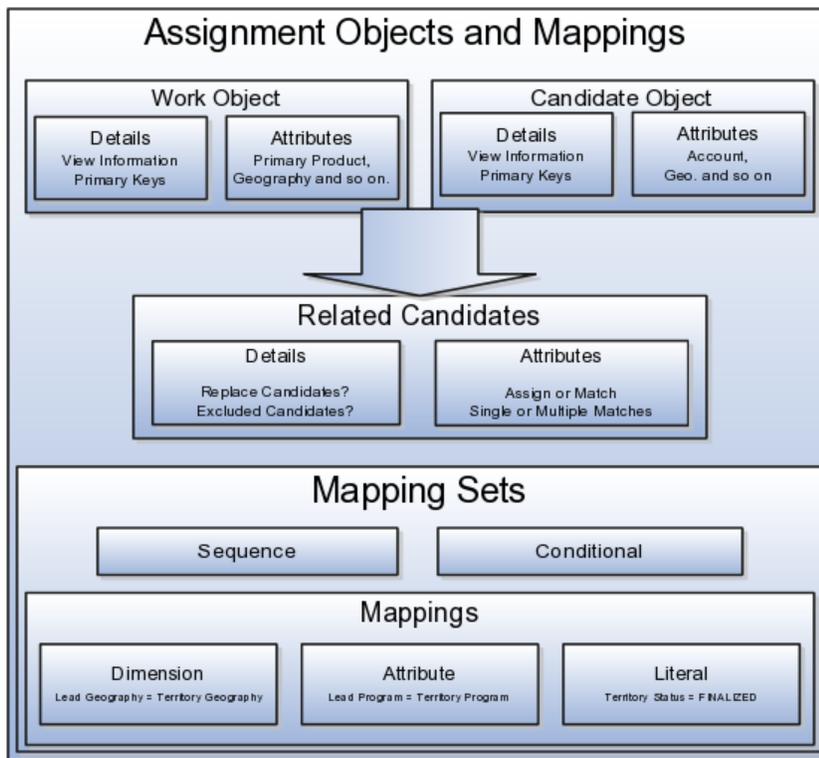
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# Manage Customer Center Assignment Objects

## Assignment Object Components: How They Work Together

The work object, candidate object, and attributes are components that fit together to create assignment objects that are used in rule-based and territory-based assignment. Work objects are business objects that require assignment, such as leads and opportunities. Candidate objects are business objects, such as resources and territories, that are assigned to work objects.

When you create candidate objects, you can select attributes for them that are later used in rules or mappings. These candidate objects also become candidates that are available for association when you create work objects. When you create work objects, you can select attributes for them also, as well as associating one or more candidates.



### Work Objects

A work object is a business object that requires assignment such as a lead or an opportunity. Creating a work object involves entering its application

information, selecting its attributes to use during assignment, and associating one or more candidates.

## Candidate Objects

A candidate object is a business object, such as a resource or a territory, that is associated with one or more work objects for eventual assignment. Creating a candidate object involves entering its application information and selecting its attributes to use in rules or mappings. A special type of candidate object is a classification object. This type of candidate object does not represent a business object that gets assigned to a work object. It is used only with classification rules and is used primarily to rank or qualify leads.

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### Note

As candidate objects are created, they become available as candidates that can be associated with one or more work objects as part of the work object creation process.

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The administrator needs to define the association between the work object and candidate object. For example, the Lead work object may have an association with both the Territory candidate object and the Resource candidate object. This implies that Assignment Manager can be used to assign Territories and Resources to a lead.

In the related Candidates tab for the Revenue work object an administrator can define the association between the work object and candidate object. For example, the revenue work object may have an association with both the territory candidate object and the credit allocation template candidate object. This association indicates that Assignment Manager can be used to assign both territories and credit allocation templates to revenue lines.

## Related Candidates

To relate a candidate object to a work object, use the following fields:

- **Assign Candidates:** Indicates that Assignment Manager performs the assignment. If not set, then Assignment Manager is used to find the matching candidates, which are then passed to the calling application to update the work object.
- **Custom Logic:** Indicates that Assignment Manager passes the result of the assignment matching to the callback function of the work object. For example, Opportunity Management uses custom logic that updates the sales team with the territory members. It stamps the territories onto the revenue line and adds the territory team members (resources) to the opportunity sales team.
- **Merge Assignment Candidates:** Controls whether the matching assignment candidates identified from processing each set of mappings should be merged. This is used to drive the merging of matching candidates when multiple mapping sets are used in assignment processing. If the check box is checked, then the candidates are merged. The default is unchecked.
- **Keep Manual Candidates:** Indicates that manually assigned candidates are retained during assignment processing. This option can be used to

prevent the removal of manually added candidates during reassignment. Sales Account and Opportunity Management have implemented their own lock assignment features.

- **Replace Candidates:** Determines whether unqualified candidates are removed from a team when an assignment runs. For example, the first time that Assignment Manager runs, a territory is assigned to a sales lead. When the reassignment process runs following a territory proposal activation, the territory is no longer valid. If Replace Candidates is set, then the territory is removed from the sales lead.
- **Candidate Exclusion:** Sales leads have a related object, which stores the excluded candidates for each sales lead. Assignment Manager accesses this information, which prevents assignment of the work object to an excluded candidate.
- **Parent Attribute:** Used by territory based assignment to determine the hierarchy of matching territories, eliminate all parent territories, and only return and assign the matching leaf node Territories. If this attribute is not used, then all matching territories (parent or leaf ) are returned and assigned.
- **Candidate Differentiation Attribute:** Stores the attribute on the candidate object that is used for discriminating matching candidates. For example, in Revenue line assignment, this attribute enables matching leaf territories of many territory types (such as Prime, Channel Sales Manager, and so on) to be assigned. The Candidate Discriminator Attribute is only relevant for territory-based assignment and can only be selected if a parent attribute has been selected.
- **Coverage Attribute:** The territory attribute used to denote whether the candidate in the matching candidate list has a regular, included, or excluded coverage.
- **Maximum Number of Candidates:** The maximum number of candidates returned for the work object and candidate object combination. The default value is 100.
- **Manual Attributes:** The attribute that identifies a candidate was manually assigned, rather than by the system. This attribute is used with the Keep Manual Candidates attribute.
- **Keep Manual Candidates:** A flag to retain manually assigned candidates when assigning or re-assigning a work object. This option is only relevant if the manual attribute is defined and the Assigned Candidates option is checked.

**Replace Candidates:** Indicates whether non matching candidates will be removed when re-assigning a work object. In an example scenario, in the first time assignment runs, territory A is assigned to a sales lead and there is a change within the territory definition. When the sales lead is reassigned, territory A is no longer valid. If this option was selected, then territory A is removed from the sales lead.

- **Score Attribute:** The score attribute in which the calculated score is stored.
- **System Attribute:** The attribute that identifies a candidate was assigned by the system, rather than manually.

## Selecting Attributes

Attributes are elements in the view object defined for an assignment object. For each assignment object, you can select one or more attributes that you want to use when configuring assignment rules or mappings. For example, for a work object like sales account, you might choose the attributes of Named Account Flag, Customer Size, and Organization Type. When you configure assignment mappings for the sales account work object, your chosen attributes are available. You could create a mapping for Sales Account using the Named Account Flag attribute.

When selecting attributes for a candidate object, you will not only select the attributes you want to use when configuring assignment rules and mappings that involve that candidate object, but you also want to select the attributes for that candidate object that you want to appear in the screen that displays recommended candidates after assignment manager is run. For example, if a candidate object is resource (sales representative), and you want to show sales representatives' first names, last names, and phone numbers when they are recommended during assignment processing, you need to select the attributes for the resource candidate object that correspond to first name, last name, and phone number, and specify the order in which these attributes appear in the recommended candidates screen.

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### Note

This feature is not used by any CRM applications at this time.

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## Adding an Assignment Object

The Manage Assignment Objects pages enable you to define and edit the Work and Candidate objects as well as define any territory-based mappings. The figure above shows the relationship between the work and candidate objects and the mapping of the matching candidates to work objects.

When you add or edit a work or candidate object there are several key pieces of information that are required in the definition:

- Name: a unique name for the object with an optional description.
- Code: a unique code used in processing the object.
- Work/Candidate Object check boxes: indicates if the object is a work object, candidate object or both.
- Application Module: an Oracle Application Development Framework (ADF) business component that encapsulates the business service methods and UI-aware data model for a logical unit of work related to an end-user task. Enter the fully qualified definition name of the consumer application, Application Module. Valid for top level Work and Candidate objects. Child objects automatically inherit this value from its parent.
- Application Module configuration: Valid for Top Level Work and Candidate objects except Classification Candidate objects. Child objects will automatically inherit this value from its parent.

- **View Object Instance:** used to define the data model of a view object component when designing an application module, for example, Opportunity. Valid for all levels of Work and Candidate objects except Classification Candidate objects.
- **View Criteria** may be defined to filter the information for the rows of a view object collection. Valid for top level Work and Candidate objects except Classification Candidate objects.
- **Primary Key Attribute 1:** First or only attribute that makes up the object primary key. Valid for top level Work and Candidate objects except Classification Candidate objects.
- **Refresh Interval:** the number of minutes between refreshes of candidate object data. The default setting is 0 minutes. Valid for top level Candidate objects except Classification Candidate objects.
- **Initial Caches:** The initial size of the cache when processing an object. This value will be used the first time the engine processes objects or following a server bounce. The default value is 2, and the maximum value is 20. Only valid for top level Candidate objects except Classification Candidate objects. All Work Objects that are used for scoring, Lead, for example, use the Product Level (MOW\_SCORING\_INITIAL\_CACHES) Initial caches for scoring rules profile option value.
- **Maximum Caches:** The maximum size of the pool/cache when processing the object. The default value is 5, and the maximum value is 25. Only valid for top level Candidate objects.

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#### Note

All Work Objects that are used for scoring, Lead for example, use the Product Level (MOW\_SCORING\_MAX\_CACHES) Maximum caches for scoring rules profile option value.

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- **Score Attribute:** The attribute on the object that stores the total calculated score after an assignment request has been processed. Valid for top level Work objects only.
- **Assignment Date Attribute:** The attribute on the object that stores the assignment date after an assignment request has been processed. Valid for top level Work objects.
- **Exclude Assignment Attribute:** The attribute on the object that stores the setting for excluding a work object from assignment. Valid for top level Work objects.

#### Adding Assignment Object Attributes

Assignment Manager allows users to specify a set of attributes from the assignment object VO to be used during the assignment evaluation. The assignment engine will load these Assignment Object Attributes for each assignment object VO row, in addition to any primary key or assignment attributes. This is designed to improve performance by not loading those attributes not used for the assignment evaluation.

Assignment Object Attributes should be defined for each work object and any child objects as well as each candidate object to be used by the Assignment Engine.

- **View Object Attribute:** Name of each attribute in the view object defined for the assignment object. Assignment Rules or Mappings can be configured using these attributes. For Candidates Objects, the attributes that appear in the interactive assignment UI should also be selected.
- **Candidate Information Sequence:** The sequence that this attribute is displayed in the Interactive Assignment UI.

## Setting Up Assignment Mappings

Assignment mappings drive territory-based assignments. These mappings identify the dimensions, attributes, and territory filtering used in territory-based assignment processing. Dimension mappings and some attribute mappings have a sequence which controls the order in which these mappings are used during territory matching. Mappings that do not have a sequence are used together at the end of the matching process. A default set of mappings is seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Assignment Manager has an indicator in the related **Candidates** region to control whether to merge the matching assignment candidates identified from processing each set of mappings. This indicator is used to drive the merging of matching candidates when multiple mapping sets are used in assignment processing. If the box is checked, then the candidates are merged. The default is unchecked.

You can use the following assignment mappings:

- **Attribute Mapping:** An example is assigning territories to a sales lead where the territory partner program ID is the same as the sales lead partner program ID. In this case, the territory is matched when the territory program ID is equal to the sales lead attribute program ID.
- **Dimension Mapping:** An example is assigning territories to opportunity revenue lines based on the product associated with the revenue line. In this case, the product dimension is selected as the mapping type. The candidate object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the revenue line.
- **Mapping using alternative attributes:** Using the same scenario, if a revenue line does not have a product assigned to it, but has a product group assigned, add the low sequence and high sequence attributes for product group are entered for the work object alternate low and high attributes.
- **Mapping using default values:** Using the same scenario, if the low sequence and high sequence attributes for product on a specific revenue line do not contain values, then the low and high default values for the product attribute for all revenue lines are used.

- **Literal Mapping:** A way of filtering the matched territories based on specific values of a territory attribute. For example, by only matching with territories that have a sales account centric coverage model. For example, territory coverage model equals `SALES_ACCOUNT_CENTRIC`.

## Configuring Assignment Manager: Critical Choices

Assignment is the process for selecting a candidate as an object and executing the association to a work object. Assignment consists of two phases. The first phase is the matching phase, where matching rules or mappings are evaluated to find the right assignees from a list of possible candidates. The second phase is the disposition phase, where the disposition, or assignment, of matching candidates is handled. Assignment Manager is the tool used to establish the business objects that require assignment, and to create the rules and mappings that dictate the selection and assignment of resources and territories. Candidates are potential assignees for a work object. A work object is a representation of an application business object inside Assignment Manager. A work object captures the attributes of a business object and associated child objects to be used for matching purpose. To best plan the configuration of Assignment Manager, you should consider the following points:

- Business objects
- Attributes
- Resources and territories
- Assignment disposition
- Mappings sets and mappings
- Rules

### Business Objects

A business object is a data entity or a collection of data treated as a unit, such as a sales account, an opportunity, or a lead. Any business object that requires the assignment to act upon it is considered a work object by Assignment Manager. The work object is a representation of the business object, and mappings and rules are developed to ensure timely and accurate assignment of candidates (for example, territories or resources) to those work objects. When configuring Assignment Manager, carefully consider which of your business objects require assignment, and create work objects only for those that do.

A set of business or assignment objects is seeded for the assignment of territories or resources to sales accounts, opportunities, and leads.

## Assignment Disposition

After you determine the business objects (work objects) that require assignment and the candidate objects that you will assign to them, you must decide how the matching candidate assignment disposition will be carried out. Consider these questions:

- Do you want to assign a single resource or multiple resources?
- Do you want to automatically assign matching candidates or run custom logic against matching candidates?
- Do you want to record the matching candidate score on the work object?
- Do you want to retain manually assigned candidates when assignments are processed?
- Do you want to replace disqualified candidates when assignments are processed?

## Attributes

To ensure that candidates are properly assigned to work objects, create mappings and rules. These mappings and rules employ attributes to determine the best assignments. As you set up work objects and candidate objects in Assignment Manager, also select the attributes of those objects that you want to use in your mappings and rules. For example, you might want to assign a resource such as a specific sales representative to a business object, such as opportunity, based on the risk level of the opportunity. In this case, when you create the opportunity work object and the sales representative candidate object, you will select the attribute of opportunity that corresponds with risk level, and the attribute of the sales representative that corresponds with skill name or e-mail address. Selecting these attributes makes them available for mappings and for conditions on your rules, so ensure that you select the attributes that reflect the criteria that you want to use for matching candidate objects to work objects.

## Mappings Sets and Mappings

Assignment mapping sets and their related mappings drive territory-based assignment. The mapping sets determine which mappings are used and the sequence mapping sets are used in territory-based assignment. The mappings identify the dimensions, attributes, and territory filtering used in the assignment processing. Default mapping sets and their related mappings are seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Create the mappings using the work objects, candidate objects, and attributes that you already established. When designing your mappings, carefully consider the dimensions and attributes you use in your territory structure and how you want to match these territory candidates to work objects. Also consider the shape of the information used in the territory structure; this may affect the sequence of each mapping. The sequence of the dimension mappings used in territory matching can affect performance. The most selective dimension mapping should

be given lowest sequence number. By default, this dimension is the Geography Dimension. By using the lowest sequence number, it is performed earliest in the matching process which results in the smallest number of territory matches. This same approach should be followed for the remaining dimension and applicable attribute mappings.

## Rules

Rules are defined for the execution of rule-based assignment. Rules are designed to return candidates based on whether these candidates match a set of criteria, are within a defined scoring range, or are of a specific classification.

Create the rules using the work objects, candidate objects, and attributes that you already established. When designing your rules, carefully consider how you want to match candidates to work objects. For example, would you want resources assigned based on their geographic location, their product knowledge, on the status or score of an object, or a combination of any of these attributes? Do you want to match candidates only, or would you like to match candidates and score them? In a multiple-candidate scenario, do you want to assign all matching candidates or only those who achieve higher than a specific score? Consider these questions before creating rules.

## Creating Assignment Mappings: Examples

For territory-based assignment, you create work-object-to-candidate-object mappings during assignment object creation. These mappings are used to make candidate assignments. You can create multiple types of mappings for assignments. The following scenarios illustrate these different mappings:

- Creating an attribute mapping
- Creating a dimension mapping
- Creating a literal mapping

### Creating an Attribute Mapping

You want to assign territories to a sales lead when the territory program ID is the same as the sales lead program ID. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Select the territory when the attribute territory program ID is equal to the sales lead attribute program ID.

Another example would be if you want to assign territories to a sales lead based when the territory manual account inclusion or exclusion is the same as the account on the sales lead. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Match the territory when the territory attribute account node integration (AccountNodeIntgId) ID is equal to the sales lead attribute party ID.

### Creating a Dimension Mapping

You want to assign territories to opportunity revenue lines based on the product associated with the revenue line. Create a mapping where the work object is

opportunity revenue line, and the candidate object is territory. Select the product dimension as the mapping type. The candidate object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the revenue line. For example, the low sequence attribute for product on the revenue line might be called `ProdSeqLow`.

- Mapping using alternative attributes: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated with the revenue line, you might encounter a situation where a revenue line does not have a product assigned to it, but it does have a product group assigned to it. Create the same mapping that you created for the dimension mapping scenario, and add the names of the low sequence and high sequence attributes for product group for the work object alternate low and high attributes. For example, the alternate low sequence attribute for product group on the revenue line might be called `ProdGrpSeqLow`.
- Mapping using default values: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated with the revenue line, you might encounter a situation where the low sequence and high sequence attributes for product on a revenue line do not contain values when assignments are processed. Create the same mapping that you created for the dimension mapping scenario, and add low and high default values for the product attribute for revenue lines.

### Creating a Literal Mapping

Literal mappings are a way of filtering the matched territories based on specific values of a territory attribute. You want to find only territories that are finalized (for example, territory status equals FINALIZED).

## Candidate Refresh: Explained

Rule-based assignment requests that identify matching candidates or scores for matching candidates use candidate data such as resources. This candidate data is loaded into a cache and used for each assignment request until the cache is refreshed. Oracle Fusion Assignment Manager supports the ability to refresh the candidate data cache at regular intervals. The Fusion Enterprise Scheduling Service (ESS) process **Refresh Cache** is used to set an indicator that the candidate data should be refreshed the next time there is an assignment request using that candidate.

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### Note

This feature affects rule-based assignment using the rule set types of matching candidates or matching candidates with scoring only.

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Implementations may schedule this process daily, weekly, and so on, as required by the frequency of changes to the candidates. Consider how often the candidate data will change and how critical it is to have the changes available for use in assignment. For example, resource details may change daily and therefore the

resource candidate data cache for Lead Management may need to be updated once per day.

As indicated in the note above, the **Refresh Cache** process should be defined for each candidate object and application that uses Rules-based Assignment candidate matching or candidate matching with scores. The process has the following parameters:

- Candidate Object Code, for example `Resource_Candidate_Object`.
- Owner Module, such as `sales`, or `leadMgmt`

For example, there would be one ESS process scheduled for Lead Management with the parameters: `Resource_Candidate_Object_Lead/leadMgmt`. Sales would need two processes scheduled: One with parameters `Resource_Candidate_Object/sales` and the other with the parameters `Credit_Allocation_Template_Candidate_Object/sales`.

## Sales Account Assignment Object: Explained

Territory-based assignment is based on intelligent mapping of sales account assignment object attributes and sales territory dimensions. The Sales Account Assignment object is used by Assignment Manager to identify the sales accounts and then determine which territories to assign. The table below lists sales account assignment object attributes and corresponding customer attributes as shown in Customer Center Profile and Classification nodes. See *Configuring Assignment Manager: Critical Choices* for more information about the assignment process.

Sales Account Assignment Object Attribute	Corresponding Customer Center Attribute
Geography ID	Sell-to Address
Industry	Primary Industry: the primary classification code for the classification category defined in profile option Industry Classification Category.
Organization Type	Primary Organization Type: the primary classification code for the classification category Organization Type defined in profile option Industry Classification Category.
Customer Size	Customer Size
Named Account Type	Named Sales Account Indicator
Party ID	Party ID
Auxiliary Dimension 1	the primary classification code for the classification category defined in profile option Industry Classification Category for Auxiliary Dimension 1.
Auxiliary Dimension 2	the primary classification code for the classification category defined in profile option Industry Classification Category for Auxiliary Dimension 2.
Auxiliary Dimension 3	the primary classification code for the classification category defined in profile option Industry Classification Category for Auxiliary Dimension 3.

# Scheduling Sales Account Assignment: Explained

The Sales Account assignments process can be scheduled and run on the Scheduled Process page. You need to have the 'Run Sales Party Batch Assignment' privilege to be able to define and run sales account batch assignment.

To access the Scheduled Process page, start on the Fusion Home page and click **Navigator**. Under the **Tools** heading, click **Scheduled Processes**.

1. Click **Schedule New Process** then click type **Job**. Choose the process named **SalesAccountBatchAssignRequest**. If needed, use the Search link at the bottom of the Search window.
2. Enter your process details. The following table shows the view criteria and its description, as well as any bind values that are required.
  - **Work Object code:** Sales\_Account\_Work\_Object
  - **Candidate Object Code:** SalesAccountTerritory\_Candidate\_Object
  - **Assignment Mode:** Territory
  - **View Criteria Name:** (see table below)
  - **View Criteria Bind Values:** (see table below)

View Criteria Name	View Criteria Description	View Criteria Bind Values
SalesAccountsUpdatedSin	Use this view criteria to assign sales accounts which have not been previously assigned and have <code>LAST_UPDATE_DATE</code> (in the <code>ZCA_SALES_ACCOUNTS</code> table) greater than the specified date. For newly created sales accounts, <code>LAST_UPDATE_DATE</code> is the same as the creation date.	BindLastUpdateDate=[YYYY-MM-DD HH:MM:SS]
SalesAccountsAssignedBe	Use this view criteria to reassign sales accounts which have been previously assigned and have <code>LAST_ASSIGNED_DATE</code> (in the <code>ZCA_SALES_ACCOUNTS</code> table) less than the specified date.	BindLastAssignedDate=[YYYY-MM-DD]

SalesAccountTerritoryBatch	Use this view criteria to reassign sales accounts impacted by the specified territory and territory dimensional realignment batch.  This view criteria is also used internally to invoke immediate/automatic assignments after territory proposal activation and territory dimension updates.	BindReassignmentBatchId=[Territory Reassignment Batch ID]
SalesAccountBulkImportView	Use this view criteria to assign sales accounts created in a given customer import batch.  This view criteria is also used internally to invoke immediate/automatic assignments after customer import.	BindReassignmentBatchId=[Import Activity ID]
SalesAccountDimsForParty	Use this view criteria to assign the sales account with the specified sales account ID.	BindPartyId=[Sales Account ID]

3. Define a schedule as needed using the Advanced button on the Process Details page. You can schedule the process to run as soon as possible, or to run at a given frequency and start date.
4. Submit your job and monitor it using the Scheduled Processes list, refreshing it to view the latest status updates.

## FAQs for Manage Customer Center Assignment Objects

### What happens if I mark an assignment object or one of its attributes as inactive?

When the assignment object inactive box is checked the selected work or candidate assignment object is not available for assignment processing. When the assignment attribute inactive box is checked the selected work or candidate object attribute is not available for assignment processing.

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#### Note

The object or attribute cannot be set to inactive if there is a mapping set, mapping, or rule defined using the object or attribute.

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## What's the difference between literal, dimension, and attribute mapping?

**Dimension Mapping:** Dimension mapping should be used when the work object and candidate object attributes in the comparison are dimension attributes, such as Geography, Product, or Account. When creating the mapping, use the **Function Code** field to specify a unique identifier for the dimension. This identifier is passed to the translation function, in case the same function is used for multiple dimensions.

**Attribute Mapping:** This mapping enables you to compare and match attribute values between a work object attribute and a candidate object attribute. When the value of the candidate object attribute matches the work object attribute the candidate is selected. Attribute mappings should be used when the work object and candidate object attributes in the comparison are non-dimensional attributes. For example, consider a lead work object with a program ID attribute and the territory object with program ID attribute. The selection criterion is:  
`select Sales Lead Territories where Sales Lead Territory.ProgramID equals Sales Lead.LeadProgramID`  
The assignment engine will use this mapping data to construct a query on the candidate object that is equivalent to the selection criteria. When creating the mapping, the Function Service and Function Code are only needed if a translations function is used. The function code field is used to specify a unique identifier for the attribute, and this identifier is passed to the translation function.

**Literal Mapping:** Literal Mapping is used almost exclusively to filter the candidate objects. This form of mapping enables the comparison of candidate attributes against a specific value chosen by the user. The assignment engine will compare the mapped candidate object attribute against the specified literal value. For example, select the Territory Candidate object that has the attribute `TerrStatusCode` that equals the value `FINALIZED`.

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### Note

For Literal Mappings ensure that the value entered corresponds to the Lookup Type Value code, not the meaning.

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## Manage Customer Center Assessment Templates

## Assessment Templates: Points to Consider

Assessment templates let you analyze the health of a business object, such as a lead or an opportunity, and suggest appropriate next steps based on its diagnosis. To best plan and create assessment templates, you should consider the following points:

- Ratings
- Questions, Question Groups, and Question Weights
- Responses and Scores
- Associated Task Templates

### Ratings

A rating is a textual qualification such as Excellent. There are three delivered ratings in the assessment template: Excellent, Average, and Poor. Ratings provide a metric other than a numerical score for qualifying the outcome of an assessment. Ratings are created at the beginning of the assessment template creation process. They are later applied to possible responses to questions in the template, which associates each rating with a score. An appropriate feedback will be displayed to you based on the completed assessment score once you submit an assessment. When setting up ratings and applying them to possible responses, it is important to remember that they and their associated feedback text will eventually display as part of the overall assessed health of a business object.

### Questions, Question Groups, and Question Weights

Questions are the main components of an assessment template. They are written such that they aid in systematically determining the health of a business object, and they are grouped into logical collections called Question Groups. Each question in the template is assigned a question weight, expressed as a percentage, which is the relative importance of the question within the template. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized response score given for the question to produce a weighted score for that question. When setting up questions, question groups, and question weights, it is important to carefully analyze which factors determine the health of a particular business object (like a lead or an opportunity) in your organization. Use those factors to create your question groups; and then, for example, write three to five questions per group that are weighted according to your analysis. There is no limit to the number of questions that can be in a question group, but each question group must have at least one question.

### Responses and Scores

Responses are attached to questions in the template. Each question should have at least two responses, unless it's a free-form only question. More than one response can be tied to the same rating but, between all of its responses, each question should accommodate at least two ratings, unless it's a free-form only

question. For example, if your ratings are Excellent, Average, or Poor you may, for each question, include two responses that correspond to at least one of those ratings, such as average. There must be enough responses to cover at least two of the ratings such as Excellent and Average. You assign a score to each response for a question, and the application normalizes the score based on a standard scoring scale. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized score of the response given for the question to produce a weighted score for that response. When adding responses to questions, ensure that the scores and ratings you assign to each response correlate. In other words, the higher the score you assign to the response, the higher the rating should be so that you have a strong quantitative relationship between the two. Also note that you can allow free-form responses for one or more questions in the template, but free-form responses are never scored.

### **Associated Task Templates**

A task template is an instruction to generate a group of related activities. You can associate task templates with an assessment template in order to recommend tasks that should be performed after an assessment has been done for a business object. When you associate task templates with an assessment template, you can indicate a score range for each task template, and based on the total score of any assessment that uses your template, one or more task templates will be recommended as follow-up activities. In order for a task template to be available to associate with an assessment template, it must be assigned to the same business object type as that assigned to the assessment template, and it must have a subtype of Assessment. Ensure that you have set up task templates correctly before attempting to associate them to assessment templates.

## **Assessment Template Status Codes: Explained**

Throughout the life of an assessment template, it can be assigned several different status codes.

These status codes control the actions you are allowed to make against an assessment template.

- In Progress
- Active
- Retired

### **In Progress**

This is the initial status of an assessment template. When an assessment template is at this status, you can edit any part of it. This is the only status at which you can delete a template. If the template is not deleted, it moves to the Active status next.

### **Active**

This is the status assigned when the assessment template has been deployed for general usage. When an assessment template is at this status, you can make

only minor textual edits to it, including, but not limited to, template description, question text correction, question sequencing change, response description, and score range feedback. From this status, you can move the template to Retired; you cannot delete it.

## Retired

When an assessment template is at this status, it is no longer available for general usage. You cannot edit any part of it, and you cannot move it to any other status; however, it can still be copied. Active templates that are deleted revert to this status.

## Assessment Template Score Range: How It's Calculated

The application calculates the score range for an assessment template using the question weights and the ratings and scores assigned to the possible responses for all the questions in the template. This topic explains when the score range is calculated and the components that are used in the calculation, so that you can make the best decision regarding the feedback text to apply to each score range. In addition to the automatic score range calculation, a manual method for adjusting score range is also available on the administration UI.

## Settings That Affect Score Range

In order for the application to calculate the assessment template score range, you must:

- Apply weights to all template questions.
- Configure ratings and apply them to possible responses for all template questions.
- Apply a score to each of the possible responses for all template questions.

## How Score Range Is Calculated

The score ranges for each rating in an assessment template are determined using the lowest and the highest weighted response scores for each question. So for each rating score range, the lower end of the range starts where the previous rating range ended, and the higher end of the range is the sum of the highest weighted scores that can be attained for that rating.

This table displays a simple example of the components used in the score range calculation.

Question (Weight)	Response (Normalized Score)	Weighted Score	Rating
What is the customer win? (20%)	Lower Operating Cost (100)	20	Excellent
	Higher Revenues (80)	16	Average

	Other (53)	11	Average
	Don't Know (27)	5	Poor
What is our win? (80%)	Reference (60)	48	Average
	Resale (50)	40	Poor
	Partnership (100)	80	Excellent

This table displays the score range calculation based on the components from the first table.

Rating	Score Range	
Excellent	65 - 100	
Average	46 - 64	
Poor	0 - 45	

---

**Note**

If a template administrator does not use a particular rating while assigning ratings to possible responses, this could result in improper score range calculations. To counteract this problem, the score range calculation uses a built-in correction algorithm to ensure proper score ranges. The correction algorithm works like this: For a question where a particular rating is skipped, the low score for the skipped rating is calculated to be equal to the high score of the next lower ranked rating. The high score for the skipped rating is calculated to be equal to the low score of the next higher ranked rating.

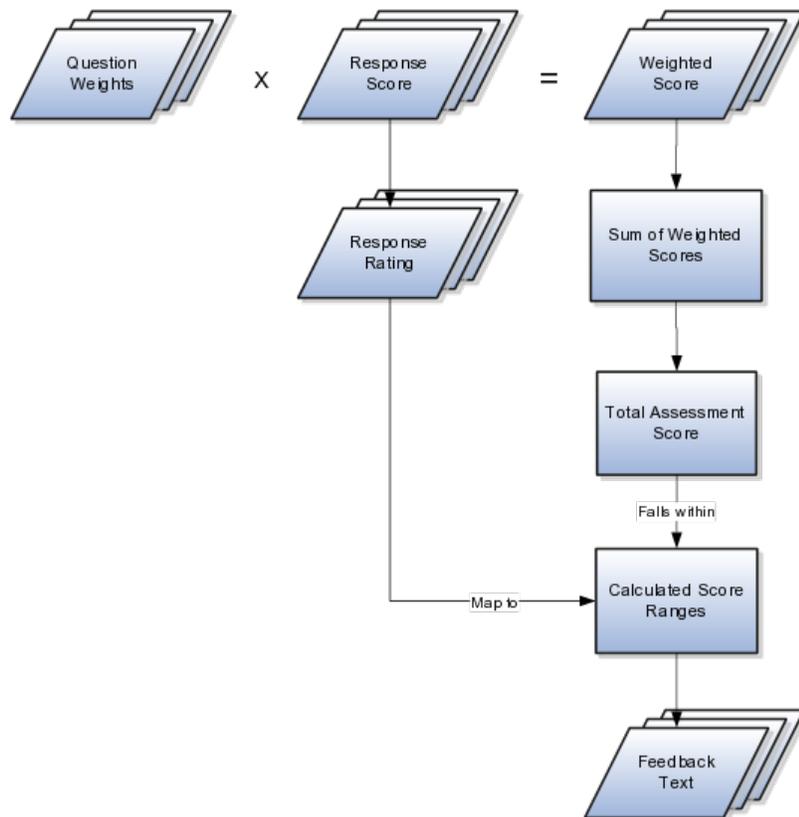
Using the ratings displayed in the tables above, if the rating Average is not used for a question's possible responses, the score range calculation assigns a low score to Average for that question that is equal to the high score of Poor for that question. It also assigns a high score to Average for that question that is equal to the low score of Excellent for that question. This ensures that the overall template score range for Average is calculated to fall between the score ranges for Poor and Excellent.

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## Assessment Template Components: How They Fit Together

The question weight, response score, and response rating are the assessment template components that fit together to calculate and display the overall assessment score, rating, and feedback text.

A question weight is multiplied by a response score to achieve a weighted score for an assessment template response. The weighted scores for all responses are added together to determine the total assessment score. This score will fall within a precalculated score range that is associated with a response rating and feedback text. Therefore, the score range within which the total assessment score falls determines the rating and feedback text to display for a completed assessment.



### Question Weight

The question weight is the relative importance of a question within an assessment template, and it is expressed as a percentage. All of the question weights within a template must total to exactly 100. When an assessment template is used to perform an assessment, a question's weight is multiplied by the score of the response given for the question to produce a weighted score for that response.

### Response Score

A response score is the score assigned to a possible response to a question in the template. The template administrator sets response scores with no upper or lower bounds, and each score is normalized in order to accurately score an assessment that uses the template. The response scores are normalized by assigning a score of 100 to the highest response score, and then all other responses are assigned a normalized score relative to that highest score.

When an assessment template is used to perform an assessment, the normalized score of the response given for the question is multiplied by the question's weight to produce a weighted score for that response.

### Response Rating

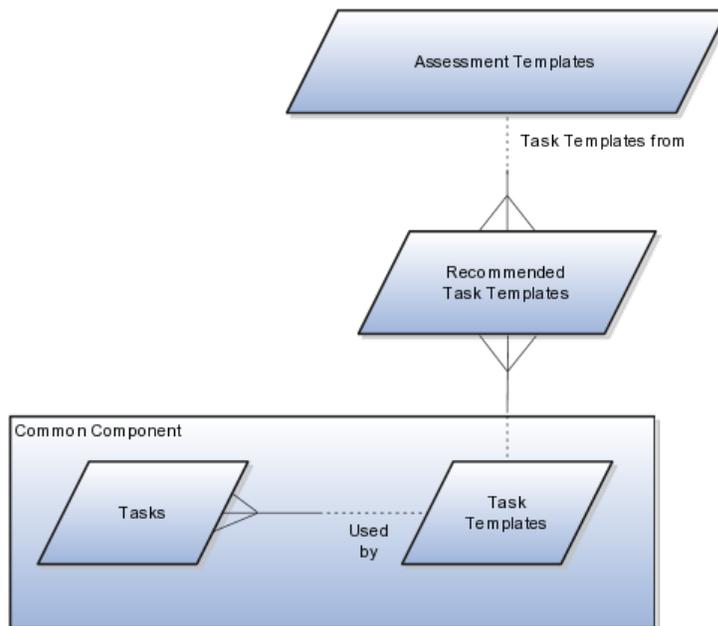
A response rating is the rating assigned to a possible response to a question in the template. A rating is a textual qualification like Excellent or Poor that provides a metric other than a numerical score for qualifying the outcome of an assessment. A response rating is directly related to a response score, and this relationship should ensure that a higher score will translate to a higher rating.

Early in the template creation process, the administrator configures ratings to assign to responses. The administrator then assigns scores and ratings to responses, and the system calculates score ranges based on those entries. Each rating is assigned to a score range, and the administrator is given the opportunity to apply feedback text to the rating-score range combination.

When an assessment template is used to perform an assessment, the weighted scores from all responses are added to determine the total assessment score. That score will fall somewhere within the calculated score ranges, which then determines which rating is assigned to the assessment and what feedback text to display. The maximum total assessment score is 100.

## Assessment Templates and Task Templates : How They Fit Together

One of the steps for creating an assessment template is associating task templates. You would take this step if you want to recommend sets of tasks to be done after an assessment is performed using your template. You associate task templates to ranges of scores in the assessment template, and where the overall assessment score falls within those ranges determines the tasks that are suggested to be performed after the assessment.



### Assessment Template

An assessment template is a set of weighted questions and possible responses used to evaluate the health of a business object such as an opportunity or a lead. An assessment template can be associated with one or more task templates that are recommended based on the outcome of an assessment.

### Task Template

A task template is an instruction to generate a group of related activities. By marking a task template with a subtype of Assessment, you make that task

template available for association with assessment templates. The task template's business object type should be the same as that assigned to the assessment template. When an assessment is performed using an assessment template that has associated task templates, one or more task templates are recommended based on the total score of that assessment and can be used to generate a list of activities to perform.

For example, you can associate a task template called Engage Business Development Manager with your assessment template called Potential for Win-Win. Associate the task template with the score range of 86 to 100, so if an assessment using the assessment template Potential for Win-Win scores within that range, the application recommends the Engage Business Development Manager task template and a list of follow-up activities based on that template can be generated.

## **FAQs for Manage Customer Center Assessment Templates**

### **What happens if I include a free-form response for a question?**

A score of 0 is assigned for free-form responses.

A free-form response option will have no effect on the overall assessment score. The free-form response offers the opportunity to enter a textual response to a question that does not conform to any of the pre-populated responses provided by the assessment template.

### **What's a Question Group?**

A question group is a logical grouping of questions within an assessment template, and it is used strictly as a category header for those questions. Through careful naming of a question group, you can achieve the benefit of providing the user of the template with an approximate idea of the type of questions to expect in each group.

### **Why am I being asked to enter question weights again?**

This step lists all of the assessment template questions in one place, and provides you with the opportunity to edit weights as necessary to ensure that the sum of all weights totals 100.

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# Common Sales Configuration: Define Notes, Calendar, Appointments, and Interactions

## Define Sales Notes

### Defining Notes: Points to Consider

A note is a record attached to a business object that is used to capture nonstandard information received while conducting business. When setting up notes for your application, you should consider the following points:

- Note Types
- Note Type Mappings

#### Note Types

Note types are assigned to notes at creation to categorize them for future reference. During setup you can add new note types, and you can restrict them by business object type through the process of note type mapping.

#### Note Type Mappings

After note types are added, you must map them to the business objects applicable to your product area. Select a business object other than Default Note Types. You will see the note types only applicable to that object. If the list is empty, note type mapping doesn't exist for that object, and default note types will be used. Select Default Note Types to view the default note types in the system. Modifying default note types will affect all business objects without a note type mapping. For example, you have decided to add a new note type of Analysis for your product area of Sales-Opportunity Management. Use the note type mapping functionality to map Analysis to the Opportunity business object. This will result in the Analysis note type being an available option when you are creating or editing a note for an opportunity. When deciding which note types to map to the business objects in your area, consider the same issues you

considered when deciding to add new note types. Decide how you would like users to be able to search for, filter, and report on those notes.

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**Note**

Extensibility features are available on the Note object. For more information refer to the article Extending CRM Applications: how it works.

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## Manage Calendar Profile Option

### Creating the CRM Common Calendar: Worked Example

The Oracle Fusion Customer Relationship Management (CRM) common calendar is used across CRM applications. The calendar utilizes the Accounting Calendar Default profile option that is **not** set when the delivered product is installed. First, create an accounting calendar with calendar periods appropriate for your CRM needs, and give it a unique name, CRM Calendar, for example. Then, you must specify that calendar in the Accounting Calendar Default profile option. Use the tasks noted below in the Set and Maintenance area to accomplish these tasks.

#### Creating the Accounting Calendar

1. In the Set Up and Maintenance area, Overview page, All Tasks tab, search for the topic names containing **Accounting Calendar**
2. Manage Accounting Calendars will show up in the results box. Click the **Go To Task** icon.
3. On the Managing Accounting Calendars page, click the **Create** icon.
4. Fill in the required fields as appropriate for the calendar and click **Next**. Make note of the name utilized as this will be required in the next topic.

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**Note**

When creating the calendar, the first calendar date should be the first date of the period of the oldest historical data on which you will be reporting. For example, if you were to select January 1, 2010 as your first calendar date, you would only be able to enter or import historical data associated with this date and beyond.

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5. Insure that the calendar data is correct and click **Save**.

#### Managing the CRM Common Calendar Profile Option

The CRM calendar profile option needs to be associated with the new accounting calendar. Follow these steps:

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**Note**

While the Common Financial Calendar feature of Oracle Fusion Applications supports creation of more than one calendar, Fusion CRM may only be

associated with one calendar. Many features of Fusion CRM utilize this common calendar profile option and changing it could result in the loss of data for one or more applications. Oracle strongly recommends that you do not change the selected Accounting Calendar Default (ZCA\_COMMON\_CALENDAR) profile option calendar value once it is set.

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1. Navigate to the Set Up and Maintenance, Overview page, All Tasks tab, and search for task names containing **Calendar**.
2. Locate Manage Calendar Profile Option and click **Go To Task**.
3. On the Manage Calendar Profile Option page, locate the ZCA\_COMMON\_CALENDAR: Profile Values sub page and click the one profile option value line.
4. Click the drop down for Profile Value and select the calendar name that you created above. Click **Save and Close**.

## Define Sales Interactions

### What's an Interaction?

The primary purpose of an interaction is to provide a historical view of all communications initiated by you to a customer (outbound) or by a customer to you (inbound). Interaction is intended to document **customer** communication, not internal communication, therefore Customer is a required attribute. You can record the method of communication, or channel, by which the interaction occurred. For example, you can denote that the communication was via phone, E-mail, by chat, through a web conference, a meeting in person, and so on. It also records the business objects discussed in the communication. That is, which opportunity or marketing campaign was discussed? You can summarize the interaction or outcome in the Description attribute or pick a specific value in the Outcome attribute, such as "Left Message". But, the actual content of the interaction should be attached as a separate file, especially when it is larger. Finally, you can not only list the external customer contacts but also any internal resources who were participants in the interaction.

Extensibility features are available on the Interaction object. For more details, refer to the article [Extending CRM Applications: How It Works](#)



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## Define and Maintain Opportunities

### Define and Maintain Opportunities

#### Close Opportunity Flow Setup: Points to Consider

Several methods exist to close an opportunity, but a method likely to be preferred by sales representatives and sales managers alike involves the presentation of a summary screen where the representative must review and enter information about the opportunity before the opportunity can be closed. The summary screen allows the representatives to enter last-minute changes to the opportunity header and revenue items before submitting the opportunity to the close process.

#### Close Opportunity Profile Options

The following Opportunity Management profile options can be set to control the close opportunity behavior:

Profile Option Display Name	Default Value	Effect
Close Opportunity Flow Enabled	Yes	Determines whether the close opportunity flow is enabled. A Yes value allows the explicit close opportunity actions in the edit opportunity UI, as well as the subsequent close opportunity summary screen.
Close Opportunity Win/Loss Reason Requirement	Yes	Determines whether, when closing an opportunity, the user is required to enter a win/loss reason. Applies both at the opportunity and revenue item level. When an opportunity or revenue line is saved in a closed status and the profile option is enabled, the application validates that a win/loss reason is specified on the opportunity or revenue line, respectively.

Close Opportunity Competitor Requirement	Yes	Determines whether, when closing an opportunity, the user is required to enter a competitor. Applies both at the opportunity and revenue item level. When an opportunity or revenue line is saved in a closed status and the profile option is enabled, the application validates that at least one competitor is specified on the opportunity or revenue line, respectively.
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### Sales Status Syncing Rules in Close Opportunity Flow

The business rules for sales statuses in the close opportunity context are the same as for opportunity and revenue line status synchronization. See the topics in the Related Links section of this topic for more information.

## Benefits of a Dedicated Close Opportunity Flow: Explained

Implementing a dedicated close opportunity flow and mandatory summary screen can be of great benefit to deploying organizations, as discussed in the points that follow.

- Deploying organizations can add, through extensibility, custom fields potentially visible only during closing.
- The act of closing an opportunity is like a transactional submission, since closing an opportunity has consequences (although the changes are reversible). Traditional UI behavior suggests that a final submission step should be preceded by a summary UI displaying the key attributes for that object.
- A comprehensive UI lets sales representatives review all opportunity key attributes and make quick changes if warranted before going through with the close process.
- Certain mandatory fields need to be addressed during closing, such as Win/Loss Reason and Competition. A dedicated UI provides a much better experience in terms of attracting the representative's attention to those fields immediately before closing the opportunity.
- Skipping the dedicated close UI in favor of validations in the edit opportunity UI may put off users due to the following reasons:
  - Some of the validations may not even be visible without expanding all the revenue items. For example, entering competitors is required during closing (both at the summary as well as revenue item level).
  - It may take the representative several mouse clicks to close an opportunity in the edit opportunity UI, since he might need to explicitly save repeatedly as the application cycles through the close validations. The total cost of these save attempts may weigh heavily on the application usability.

## Summary of Opportunity Business Logic: Explained

This topic provides a summary of opportunity and revenue line business rules relevant to opportunity close processes and their applicability in the edit opportunity, close opportunity, mass update opportunities, and mass update revenue lines flows.

The following table describes the synchronization update behavior during the close opportunity flow.

Object or Field Being Updated	Behavior	Applicable to Edit Opportunity Flow	Applicable to Close Opportunity Flow	Applicable to Mass Update Opportunities
Win probability, close date, status	Copy opportunity attribute value to revenue line attribute values.	X	X	X
Win/loss reason	Copy opportunity attribute value to revenue line attribute values.		X	X

The following table describes the field or attribute change behavior during a change to opportunity status in the context of the close opportunity flow.

Opportunity Status Change	Behavior	Applicable to Edit Opportunity Flow	Applicable to Close Opportunity Flow	Applicable to Mass Update Opportunities
To won	Set sales stage to last stage of sales method. Set win probability to 100 percent.	X	X	X
To lost or no sale	Set close date to current date	X	X	X
From open to closed	<ul style="list-style-type: none"> <li>• Enable win/loss reason</li> <li>• Set actual close date to system timestamp</li> </ul>	X	X	X
From open to closed	Copy primary competitor to revenue line where competitor is undefined		X	X
From closed to open	<ul style="list-style-type: none"> <li>• Set actual close date to undefined</li> </ul> Disable win/loss reason. Set win/loss reason to undefined.	X	X	X

The following table describes the field or attribute change behavior during a change to opportunity revenue line status in the context of the close opportunity flow.

Revenue Line Status Change	Behavior	Applicable to Edit	Applicable to Close	Applicable to Mass Update Opportunities	Mass Update Revenue Lines
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		Opportunity Flow	Opportunity Flow		
To won	Set win probability to 100 percent.	X	X	X	X
To lost or no sale	Set close date to current date.	X	X	X	X
From open to closed	<ul style="list-style-type: none"> <li>• Enable win/loss reason.</li> <li>• Set actual close date to system timestamp.</li> </ul>	X	X	X	X
From closed to open	<ul style="list-style-type: none"> <li>• Disable win/loss reason.</li> <li>• Set win/loss reason to undefined.</li> <li>• Set actual close date to undefined</li> </ul>	X	X	X	X

The following table describes the validations done for competitor, win/loss reason, and status, during the close opportunity flow.

Object Being Validated	Behavior	Applicable to Edit Opportunity Flow	Applicable to Close Opportunity Flow	Applicable to Mass Update Opportunities	Mass Update Revenue Lines
Competitor	If the profile option, Close Opportunity Competitor Requirement, is enabled, require competitor on opportunity and revenue line.	X	X	X	X
Competitor	Validation error dialog option to copy primary competitor to revenue line.	X	X		

Win/loss reason	If the profile option, Close Opportunity Win/Loss Reason Requirement, is enabled, require win/loss reason on opportunity and revenue line.	X	X	X	X
Status	Revenue line status must be valid for opportunity status.	X	X	X	X

## Setting up Opportunity Revenue: Points to Consider

Oracle Fusion Opportunity Management offers a variety of configuration options when setting up revenue functionality. This topic discusses points to consider about the setup and behavior of revenue functionality.

### Revenue Amounts, Revenue Line Items, and Revenue Types

This section discusses points to consider when setting up the revenue amount field, revenue line items, and revenue types.

As an implementer, you may want to configure Oracle Fusion Opportunity Management with the revenue amount as a read-only field for salespeople. This setup ensures that the revenue amount reconciles with the quantity and estimated price. By default, in Fusion Opportunity Management, the revenue amount is an editable field in order to accommodate scenarios where sales representatives know a projected revenue amount but may not know the quantity. You can make the revenue amount read-only through customization.

Keep in mind that opportunity revenue amounts are projected revenue amounts and do not represent actual, booked, or billed revenue amounts.

One opportunity can be associated with multiple revenue line items. Deploying organizations have the flexibility to track their pipeline-related attributes, such as close date, win probability, forecast, and status at the opportunity or opportunity revenue line level. Tracking at the line level allows organizations to track their pipelines at a granular level, since it is specific for each product that the customer is interested in purchasing. Typically, companies that have faster sales cycles track their pipelines at the opportunity level, and companies that have a longer sales cycle track their pipelines at the opportunity revenue line level.

Revenue Type allows you to categorize revenue lines for grouping, sorting, and summarization purposes. Several values are supplied with the application, such as Pipeline, Upside, Expected, Committed and Closed. These values can be customized. Typically, Revenue Type is used by customers who are integrating with back-office applications.

Deploying customers typically inspect the values in the Revenue Type field before rolling out their applications, and should avoid changing these values after users have begun using the application, as data integrity issues may result. If customers decide to change the list of values after the application is deployed, they must clean up the revenue records that refer to the obsolete values.

## **Products and Revenue Items**

This section discusses points to consider when setting up product selection and product eligibility.

The product selector and sales catalog also provide territory based filtering. If this filtering is switched on, only products/product groups available in your territory are displayed in the product selector and catalog. Implemented by the administrator, this filter is switched on by default.

By default, the product item selector contains the same set of product items that are available in the sales catalog that the user has access to. This catalog is a product group hierarchy where the root product group has a usage set to BASE. This hierarchy has to be "pristine" (in other words, a product or product group can appear only once in the hierarchy). Note that products represent the leaf level nodes of this tree. Administrators can configure any product group hierarchy to be the sales catalog as long the hierarchy is pristine.

### **Product Eligibility**

Opportunity Management supports eligibility rules in the product selectors and catalog. Administrators can customize the eligibility display options within the selectors. The customization is a parameter that gets passed when invoking the eligibility procedure. The display options are:

- **Hide Products:** Products are not displayed if the customer is not eligible to purchase them.
- **Show Products with Comments:** All products are displayed. A comment is displayed with each product that says whether the customer is eligible to purchase it.

By default, the product selector displays all products with comments. Default eligibility rules are based on the following attributes:

- Customer organization type
- City
- State
- ZIP code
- Country

For opportunity revenue line items, the eligibility attributes are derived from the opportunity customer business object. For more information on eligibility setup, refer to the sales catalog topics.

### **Revenue and Nonrevenue Credit Recipients**

This section discusses points to consider when setting up revenue credit recipients.

The application automatically assigns the revenue creator 100 percent of the revenue credit and makes him the default recipient. Users with sufficient permissions can override the default credit recipient using the credit allocation screens. Note that territory assignment process, under certain conditions, can algorithmically select credit recipients, assuming that the existing credit recipient is not locked prior to assignment execution.

A revenue credit recipient may belong to multiple resource organizations, but, on the revenue line, only one resource organization is referenced. The credit recipient picker will display credit recipient-organization combination. For example, if sales representative John belongs to Organization 1 and Organization 2, the credit recipient picker will display two records: John - Organization 1 and John - Organization 2.

### **Business Units**

Each revenue line is associated to only one business unit. The application uses the opportunity header business unit (which is based on the profile of the user who created the opportunity) to populate the default business unit on the lines. Business unit as a field is not displayed in the UI by default, but can be exposed using Oracle Fusion Application Composer.

### **Multi-Currency Support**

Oracle Fusion Opportunity management supports multi-currency scenarios. Although the opportunity currency is defaulted when creating a new revenue line, sales representatives can override the default currency code.

### **Territory Assignment**

Territories are automatically assigned to line revenues by assignment manager.

## **Setting up Revenue for Forecasting: Points to Consider**

Administrators should consider several aspects of forecasting functionality when setting up opportunity revenue items for forecasting.

### **Forecasting Revenue**

Administrators have several forecasting options when setting up opportunity revenue.

In the Oracle Fusion Opportunity Management UI, a checked Forecast setting value on a revenue item implies that the revenue will be included in the next forecast of the series (in other words, the next time forecast snapshot is generated). It does not necessarily imply that the revenue is already included in the latest forecast of the series (for example, a revenue item meets criteria, but the latest forecast of the series is already submitted). However, when the next snapshot is generated (for the next forecast frequency), the revenue item will be included, provided it continues to meet the forecast criteria.

While setting up Oracle Fusion Sales Forecasting, deploying organizations can define how revenue lines get pulled into the forecast. There are three basic options possible:

- Opportunity revenue can be systematically added to the forecast based on a set of global criteria defined during setup. The list of attributes that can be used as forecast criteria is fixed and not extensible.
- Salespeople in Opportunity Management and Sales Forecasting can also override the criteria for each individual opportunity revenue item by using the Include in Forecast list of values, if enabled. If the list of values is enabled during setup, salespeople can exclude an opportunity revenue item from the forecast, even if it satisfies the forecast criteria, or add an opportunity revenue item into the forecast, even if it does not satisfy the forecast criteria.
- Salespeople in Sales Forecasting can manually specify each individual opportunity revenue item to be included into the forecast. In this case, no forecast criteria are set up.

The application computes the forecast setting dynamically as the salesperson makes changes to any of the following revenue attributes: Product Group, Quantity, Estimated Price, Revenue, Win Probability, Revenue Type, Expected Revenue and Status. However, it will only update the corresponding forecast items when the salesperson saves the changes.

See the topic, [Setting up Forecast Override and Criteria for Opportunities: Explained](#), for more information on setting up the desired forecasting behavior for your implementation.

The application always includes in the forecast a revenue line that has been set to a status category of Won. For a won revenue line, the system ignores the value in the Include in Forecast field, even if it is set to No. Sales Forecasting does not provide an option to override this behavior. If revenue status changes to a category corresponding to category that means won, revenue code sets the forecast setting to yes, regardless of the value in Override Forecast or Include in Forecast. If the status changes to a value other than Closed-Won, the old behavior (above) will kick in.

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#### Note

Opportunity Management supports one forecast criterion. Thus, there is only one forecast time series.

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### Generate Forecast Process

The process, Generate Forecast, uses the following logic to determine which items should be included in the process:

- Invoke the process for all unsubmitted forecast items and corresponding revenue whose Include in Forecast option is set to When matches forecast criteria.
- All unsubmitted forecast items are reevaluated for criteria, and the Forecast setting is set accordingly (those that don't satisfy criteria are removed).

If any changes to forecasting criteria are made, the Generate Forecast process runs to check and modify forecast settings for unsubmitted revenue lines.

If new forecast criteria are introduced, the forecast settings of unsubmitted revenue lines get reevaluated by the Generate Forecast process, while Include in Forecast retains the original value.

Whenever the forecast administrator modifies criteria, the Generate Forecast process reevaluates unsubmitted revenue lines that have Include In Forecast set to When matches forecast criteria.

For recurring lines, the forecast column is blank. Since salespeople can override quantity, revenue, and other values for individual schedule lines, all the lines may or may not meet the forecast criteria. Sales Forecasting forecasts them individually.

## Sales Revenue and Territory Forecast Metrics: Explained

Oracle Business Intelligence presents a territory forecast view that displays a list of all forecast items assigned to a given territory. Containing key forecasting related metrics, including Unadjusted Forecast and Adjusted Forecast, the territory forecast view allows territory owners to compare these with the revenue-based metrics, Pipeline and Closed Revenue to Date. Both of these revenue metrics are shown in the context of the territory and forecast period/adjustment period and are sourced from the revenue fact table in the data warehouse.

### Closed Revenue

Closed revenue is the total revenue amount of all revenue line items where the status category equals Won, forecast territory is the target territory (which is being forecasted), and close date lies in the target forecast period.

### Pipeline

The pipeline represents the total revenue amount of all revenue line items where the status category equals Open, the forecast territory is the target territory (which is being forecasted), and close date lies in the target forecast period.

### Forecasting Updates to Metrics

Oracle Fusion Sales Forecasting updates Closed Revenue and Pipeline based on real-time information. This is consistent with a real-time forecasting approach, where forecast metrics like Unadjusted Forecast, Best Case, and Worst Case forecast are computed based on real-time data in the online transaction processing (OLTP) system. To achieve this requirement, these metrics are rolled up along the Active Territory hierarchy.

Sales Forecasting stores the revenue amount on forecast items in the transaction currency (or entered currency), as well as in the corporate currency. Salespersons can edit the revenue amount on the forecast items in the transaction currency. Upon saving an opportunity, the application stores the revenue amount in both the entered currency and the corporate currency. Users also have the ability to select the currency in which to view all currency values in the Sales Forecasting UI, through the use of a page-level currency switcher.

Since the revenue amounts in Opportunity Management revenue line items possibly can be in different entered currencies, it is necessary to convert them to corporate currency before aggregating them for Closed Revenue and Pipeline for a territory.

Note that these metrics are visible in the Sales Forecasting Workbench only.

## Revenue Line Syncing with Opportunity Win Probability: Example

When you change win probably percentage at the opportunity level, revenue items that were previously in sync will be resynchronized automatically.

### Scenario

For example:

- Opportunity Win Probability: 50%
- Revenue Item 1 Win Probability: 50%
- Revenue Item 2 Win Probability: 50%
- Revenue Item 3 Win Probability: 40%

When the Opportunity Win Probability is changed to 60 percent, the win probability for Revenue Items 1 and 2 also will be changed to 60 percent, because they were previously in sync with the opportunity-level win probability.

The win probability for Revenue Item 3 will remain unchanged, because it was not previously in sync with the opportunity-level win probability.

Also note that an item may be included or discluded in forecasting after the win probability is changed, depending on forecast criteria.

## Syncing Behavior of Opportunity and Revenue Line Attributes: Explained

While opportunity statuses and revenue (line) statuses are separate entities, Oracle Fusion Opportunity Management automatically synchronizes the statuses of the two entities based on certain behavior.

### Changes to Opportunity Attributes Resulting in Changes to Other Opportunity and Revenue Line Attributes

For the convenience of sales personnel and to improve accuracy of opportunity revenue data, some of the attributes shared by opportunities and revenue lines have specialized interrelated behavior, so that an update to one opportunity or revenue line attribute may result in an update to another opportunity or revenue line attribute. The common attributes that have specialized interrelated behavior include:

- Win probability
- Close date
- Include in forecast setting
- Status
- Win/loss reason
- Competitor

### Synchronized Opportunity and Revenue Line Attribute Updates

One type of specialized interrelated behavior of common opportunity and revenue line attributes is the propagation of opportunity attribute updates to in-

sync revenue line attributes. A common opportunity and revenue line attribute is said to be in-sync if its opportunity and revenue line values are the same, and if the revenue line is in the same status category as its opportunity. The revenue line is said to be in-sync with its opportunity with respect to the attribute.

An update to an opportunity attribute will result in propagation of the same attribute update to all of the opportunity revenue lines where the revenue line is in-sync with respect to the attribute. For example, if three of four open revenue lines on an open opportunity have the same close date as the opportunity, an update to the opportunity close date will result in the update of the close date of the three in-sync revenue lines.

Propagation of updates from opportunity to in-sync revenue lines applies to the following opportunity attributes:

- Win probability
- Close date
- Include in forecast setting
- Status (not status category)

For example, an update of an opportunity win probability results in propagation of the same update to win probability for all of the opportunity revenue lines that are in-sync with respect to the win probability attribute (in other words, the revenue line has the same original value of win probability that the opportunity did before the update and is in the same status category as the opportunity). In-sync opportunity and revenue line attribute updates apply to:

- Opportunities in all statuses and status categories
- Normal edit opportunity flow actions and close opportunity flow actions
- Mass update opportunities actions

### **Opportunity Status Attribute Updates**

Another type of specialized interrelated behavior of common opportunity and revenue line attributes involves updates to opportunity status and the side effects that such updates have on other opportunity and revenue line attributes. Updates to opportunity status have the following side effects:

- Propagation of opportunity status updates to in-sync revenue lines as described later in this help topic
- When opportunity status is updated to a Won status:
  - Update opportunity win probability to 100 percent. Do not propagate the win probability update to in-sync revenue lines.
  - Update sales stage to the last stage of the opportunity sales method
- When opportunity status is updated to a Lost or No Sale status:
  - Update opportunity close date to the current date. Do not propagate the close date update to in-sync revenue lines.
- When opportunity status is updated from an open status to a closed status:
  - Enable the opportunity win/loss reason attribute

- For the close opportunity and mass update opportunities flows only:
  - If the opportunity primary competitor is defined, update the revenue line competitor to the opportunity primary competitor for all opportunity revenue lines where the competitor attribute is undefined
  - The revenue line update behavior related to competitor does not apply to the edit opportunity and mass update revenue lines flows
- When opportunity status is updated from a closed status to an open status:
  - Disable the opportunity win/loss reason attribute
  - Update the opportunity win/loss reason attribute to undefined. Do not propagate the win/loss reason update to in-sync revenue lines.

### **Revenue Line Status Attribute Updates**

Updates to revenue line status have the following side effects on other revenue line attributes:

- When revenue line status is updated to a Won status: Update revenue line win probability to 100 percent
- When revenue line status is updated to a Lost or No Sale status: Update revenue line close date to the current date
- When revenue line status is updated to a closed status: Enable the revenue line win/loss reason attribute
- When revenue line status is updated to an open status:
  - Disable the revenue line win/loss reason attribute
  - Update the revenue line win/loss reason attribute to undefined

### **Opportunity Win/Loss Reason Attribute Updates**

Another type of specialized interrelated behavior of common opportunity and revenue line attributes involves updates to opportunity win/loss reason.

The opportunity win/loss reason attribute is disabled when the opportunity is in an open status.

An update to an opportunity win/loss reason will result in propagation of the update to all of the opportunity revenue lines where the win/loss reason attribute is in-sync.

In-sync for the win/loss reason attribute means:

- The revenue line has the same original value of win/loss reason as its opportunity before the update
- If a revenue line and its opportunity both have undefined values, they are considered to have the same value
- The revenue line is in the same status category as its opportunity

The above applies to the close opportunity and mass update opportunities flows only. It does not apply to the edit opportunity and mass update revenue lines flows.

### **Revenue Line Win/Loss Reason Attribute Updates**

The revenue line win/loss reason attribute is disabled when the revenue line is in an open status.

### **Opportunity and Revenue Line Competitor Attribute Updates**

Another type of specialized interrelated behavior of common opportunity and revenue line attributes involves updates to opportunity competitor.

When opportunity status is updated from an open status to a closed status, if the opportunity primary competitor is defined, update the revenue line competitor attribute to the opportunity primary competitor for all opportunity revenue lines where the competitor attribute is undefined.

When an opportunity with one or more revenue lines in a closed status is saved, a validation check may fail because a revenue line competitor attribute is undefined. When opportunity save validation fails for this reason, if the opportunity primary competitor is defined, the error dialog that appears will offer the user an option to correct the validation failure by copying the opportunity primary competitor to all of the revenue lines having undefined competitor attributes. This behavior applies to both edit opportunity and close opportunity flows. This behavior does not apply to the mass update opportunities and mass update revenue lines flows. A validation failure due to missing required revenue line competitor attributes will result in an error message with no options to correct the validation failure.

## **Setting up Forecast Override and Criteria for Opportunities: Explained**

Oracle Fusion Opportunity Management and Oracle Fusion Sales Forecasting work together to support a cohesive set of revenue forecasting functionality. To control revenue forecasting behavior, during setup, administrators set the following two fields in Sales Forecasting:

- **Enable Forecast Criteria Override:** This check box setting controls the appearance and behavior of the Include in Forecast list of values in the forecasting and opportunity revenue UIs.
- **Forecasting Criteria:** Values entered here specify the criteria for including revenue in the forecast and control whether the text, Forecast Criteria, is displayed in the opportunity revenue UI. In the criteria fields, administrators can set win probability values at either greater than, equal to, or less than, a certain percentage. Administrators can also choose not to set any forecast criteria.

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#### **Note**

Revenue items included in the forecast will have a green check mark in the Forecast column in the revenue items table in Opportunity Management.

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The following table outlines the impact of setting the Enable Forecast Criteria Override and Forecasting Criteria fields.

Criteria Specified During Setup?	Enable Forecast Criteria Override Checked?	Include In Forecast Values in UI	Default Value for Include In Forecast	Forecast Criteria Displayed in UI
Yes	Yes	<ul style="list-style-type: none"> <li>• Always</li> <li>• Never</li> <li>• When matches forecast criteria</li> </ul>	When matches forecast criteria	Yes
Yes	No	Not displayed, but defaulted in database to When matches forecast criteria	Not applicable	Yes
No	Yes	<ul style="list-style-type: none"> <li>• Always</li> <li>• Never</li> </ul>	Never	No
No	No	Not displayed, but defaulted in database to When matches forecast criteria	Not applicable	No

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**Note**

If Sales Forecasting is not set up, the Include in Forecast list of values and the forecast criteria do not display in the UI.

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The following table summarizes the conditions under which a revenue item will be included in the forecast based on the criteria being specified and the Enable Forecast Criteria Override setting.

Criteria Specified During Setup?	Enable Forecast Criteria Override Checked?	When is Revenue Item Included in Forecast?
Yes	Yes	<ul style="list-style-type: none"> <li>• Forecast Criteria Override is set to Yes</li> <li>• Criteria is satisfied</li> </ul>
Yes	No	Criteria is satisfied
No	Yes	Forecast Criteria Override is set to Yes
No	No	Nothing will be included in the forecast

**Behavior When Forecasting Settings Are Altered**

If administrators disable the Enable Forecast Criteria Override setting or alter the forecasting criteria, the forecast check mark in the opportunity revenue table

updates to reflect the change. In addition, the default value for the Include In Forecast LOV gets changed if the current value is no longer a valid value.

If administrators had enabled the Forecast Criteria Override and then disabled it, in Opportunity Management, the application sets the Include in Forecast setting to When matches forecast criteria. If administrators had set up forecasting criteria and then removed it, the application sets opportunities with Include in Forecast as When matches forecast criteria to No.

For example use cases about setting up forecasting criteria, see the topic, Setting up Forecast Override and Criteria for Opportunities: Examples.

## Default Sales Channel in Opportunities: Explained

The sales channel of an opportunity indicates whether the opportunity is being handled directly by an internal salesperson, or indirectly by an outside partner, such as a distributor or a reseller. Having an accurate sales channel value allows the correct territories and salespersons to be assigned to the opportunity. Because sales channel is a dimension in territory definitions, companies that sell through both direct and indirect channels can use territory metrics to slice and dice their revenue data by sales channel. This topic discusses support for sales channel and the way the sales channel field default settings are implemented in opportunities.

### Sales Channel Support

Opportunities support the tracking of sales channel at both the opportunity header and revenue line levels. To make it easier to maintain opportunities, the application automatically synchronizes header and line sales channel that are of the same sales status category. The default setting for opportunity and revenue line sales channel is established in the setup window, Manage Default Attributes for Partner Opportunities. This setup allows the Lead Registration Type of a partner lead to determine the default sales channel on an opportunity once the lead registration is approved and converted into an opportunity. If Oracle Fusion Partner Management functionality is not implemented, the system automatically sets the sales channel to Direct for all opportunities. Refer to the topic, Partner-Registered Lead Attributes: Explained, for additional information.

### Default Sales Channel During Opportunity Creation

If a salesperson creates an opportunity in the opportunities UI, since there is no partner and no lead registration type associated with the opportunity, the header-level sales channel field is set to Direct. If the salesperson creates revenue lines while creating the opportunity, the sales channel of those lines is set to the same sales channel as the header.

If an opportunity is created from a lead conversion, it will not have a lead registration type, and the sales channel also will be set to Direct.

If an opportunity is created from an approved lead registration, the application uses the lead registration type to determine the appropriate header-level sales channel value. For example, an opportunity that originated from a Resale lead registration carries a default sales channel of Indirect (using the default configuration). The header-level sales channel value is then used to determine a default sales channel on the revenue lines on the opportunity.

Note that if a lead registration is linked to an opportunity manually from the leads UI, the sales channel defaulting logic based on lead registration type does not apply.

### **Default Sales Channel During Revenue Line Creation**

When a revenue line is created, the default value of the revenue line sales channel always matches the header-level sales channel value. The application does not use the default setup mapped in the Manage Default Attributes for Partner Opportunities window to default the revenue line sales channel.

### **Synchronization Between Opportunity and Revenue Line Sales Channel**

In terms of general synchronization of revenue lines and the opportunity header, revenue lines that are of the same status category as that of the header level automatically carry the same sales channel value, unless user has explicitly overridden the sales channel at the line level.

If the salesperson changes the header-level sales channel value, all revenue lines that have the same sales channel value as the header and the same status category as the header are synchronized to the new value. For example, if the header-level opportunity status is Open and the sales channel is Direct, and the salesperson changes it to Indirect, all Open revenue lines that have a Direct sales channel will automatically be changed to Indirect. Revenue lines that do not match these criteria remain unchanged.

## **Deep Links: Explained**

Oracle Fusion CRM Applications enables deep linking to specific CRM details pages from external sources, such as from customer e-mails or customer portal pages. In general, a deep link is a hyperlink that points to a specific page, rather than to a top-level Web page such as a home page. In Oracle Fusion CRM, use a deep link to bypass a home page, and link directly to the details pages for opportunities. In addition, the deep link URLs that you can create are simplified to be more user-friendly.

Review these aspects of the deep linking feature before you begin to use deep links to connect to specific application pages.

- Supported objects
- Deep link URL patterns
- User authentication

### **Supported Objects**

You can create deep links that connect to the details pages for certain CRM objects. The details page, which is part of an object's work area, is the page where users can view more details about an object.

Use a deep link to connect directly to the details pages for this object:

- Opportunities

### **Deep Link URL Patterns**

The deep link URL contains all the information needed to point to a particular details page. The deep link URL pattern that you must use is formatted in a user-friendly way, and subsequently translated by the Deep Link servlet in the middle

tier. The Deep Link servlet reads the incoming request parameters, generates a new URL, and redirects the request to the deep-linked application.

This table includes the deep link URL pattern that you must use to create a deep link to a CRM details page:

CRM Object	Deep Link URL Pattern
Opportunity	<p>Use this URL pattern: <code>http://hostname:port/crmCommon/faces/deeplink?ObjType=&lt;object_name&gt;&amp;ObjId=&lt;123456&gt;</code></p> <ul style="list-style-type: none"> <li>For an opportunity, the <code>ObjType</code> <code>object_name</code> is <code>Opty</code>.</li> </ul> <p>For example: <code>http://example-host:7100/crmCommon/faces/deeplink?ObjType=Opty&amp;ObjId=99123456</code></p>

### User Authentication

The Deep Link servlet requires authentication, which means that a user will have to log in to gain access to that page, if not previously authenticated. After login, the user is redirected to the target deep link page. If the user is already authenticated at the time of clicking the deep link, then no login is required and the target deep link page is immediately displayed.

## Integrating Oracle RightNow CX with Oracle Fusion Opportunity Management: Explained

Implementers can integrate Oracle RightNow CX with Oracle Fusion Opportunity Management to allow Oracle RightNow CX staff to view opportunity history. The data is displayed in Oracle Business Intelligence Enterprise Edition (OBIEE) reports in an Oracle RightNow CX workspace.

### Steps to Enable the Integration

To enable read-only access to Oracle Fusion opportunities:

1. Click the **Configuration** button on the navigation pane.
2. Double-click **Configuration Settings** under Site Configuration. The Search window opens where you can filter your search results.
3. Clear the **Select All** check box under the Folders field. Select the **RightNow Common** checkbox, and click the Search button. The Configuration Settings editor opens.
4. Expand the folders under RightNow Common, Fusion Integration, General and edit the **Value** fields for the configuration settings shown below.
  - **FUSION\_INTEGRATION\_ENABLED**: Select **Yes** to enable Fusion integration. The default value is No (disabled).
  - **FUSION\_INTEGRATION\_PASSWD**: Type the password required to sign in to Fusion Sales for access to an OBIEE opportunity report in the

**Value (Password)** text box. Retype the password in the **Confirm** text box. The default value is blank.

- **FUSION\_INTEGRATION\_SEC\_IP\_RANGE**: This optional setting limits the hosts that are allowed access to Fusion Sales. You can type multiple IP addresses in a comma-separated list. The default value is blank.
  - **FUSION\_INTEGRATION\_URL**: Type the **URL** required for RightNow CX to map organizations to the Fusion Sales system. The default value is blank.
  - **FUSION\_INTEGRATION\_USERNAME**: Type the **user name** required to sign in to Fusion Sales for access to a read-only view of an OBIEE opportunity report. The default value is blank.
  - **OBIEE\_INTEGRATION\_URL**: Type the **URL** required for RightNow CX staff to view Fusion Sales opportunities. The default value is blank.
5. After editing the configuration settings, click the **Save** button on the ribbon and close the Configuration Settings editor.
  6. Open a custom workspace.
  7. Drag the **Oracle Business Intelligence Report** control from the Insert Control tab onto the design space.
  8. To define the OBIEE report file location, select the item, click the **Design** tab, and type the file path in the Report Path field. Important: The full path to the report name must be specified. For example: /RNow/Opportunity/Oracle\_Fusion\_Opportunity\_Report. The path to the report can be obtained in the Shared Folder of Oracle Business Intelligence Publisher (OBIP).

## Configure Opportunity Assessments

### Assessment Templates: Points to Consider

Assessment templates let you analyze the health of a business object, such as a lead or an opportunity, and suggest appropriate next steps based on its diagnosis. To best plan and create assessment templates, you should consider the following points:

- Ratings
- Questions, Question Groups, and Question Weights
- Responses and Scores
- Associated Task Templates

#### Ratings

A rating is a textual qualification such as Excellent. There are three delivered ratings in the assessment template: Excellent, Average, and Poor. Ratings

provide a metric other than a numerical score for qualifying the outcome of an assessment. Ratings are created at the beginning of the assessment template creation process. They are later applied to possible responses to questions in the template, which associates each rating with a score. An appropriate feedback will be displayed to you based on the completed assessment score once you submit an assessment. When setting up ratings and applying them to possible responses, it is important to remember that they and their associated feedback text will eventually display as part of the overall assessed health of a business object.

### **Questions, Question Groups, and Question Weights**

Questions are the main components of an assessment template. They are written such that they aid in systematically determining the health of a business object, and they are grouped into logical collections called Question Groups. Each question in the template is assigned a question weight, expressed as a percentage, which is the relative importance of the question within the template. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized response score given for the question to produce a weighted score for that question. When setting up questions, question groups, and question weights, it is important to carefully analyze which factors determine the health of a particular business object (like a lead or an opportunity) in your organization. Use those factors to create your question groups; and then, for example, write three to five questions per group that are weighted according to your analysis. There is no limit to the number of questions that can be in a question group, but each question group must have at least one question.

### **Responses and Scores**

Responses are attached to questions in the template. Each question should have at least two responses, unless it's a free-form only question. More than one response can be tied to the same rating but, between all of its responses, each question should accommodate at least two ratings, unless it's a free-form only question. For example, if your ratings are Excellent, Average, or Poor you may, for each question, include two responses that correspond to at least one of those ratings, such as average. There must be enough responses to cover at least two of the ratings such as Excellent and Average. You assign a score to each response for a question, and the application normalizes the score based on a standard scoring scale. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized score of the response given for the question to produce a weighted score for that response. When adding responses to questions, ensure that the scores and ratings you assign to each response correlate. In other words, the higher the score you assign to the response, the higher the rating should be so that you have a strong quantitative relationship between the two. Also note that you can allow free-form responses for one or more questions in the template, but free-form responses are never scored.

### **Associated Task Templates**

A task template is an instruction to generate a group of related activities. You can associate task templates with an assessment template in order to recommend tasks that should be performed after an assessment has been done for a business

object. When you associate task templates with an assessment template, you can indicate a score range for each task template, and based on the total score of any assessment that uses your template, one or more task templates will be recommended as follow-up activities. In order for a task template to be available to associate with an assessment template, it must be assigned to the same business object type as that assigned to the assessment template, and it must have a subtype of Assessment. Ensure that you have set up task templates correctly before attempting to associate them to assessment templates.

## Assessment Template Status Codes: Explained

Throughout the life of an assessment template, it can be assigned several different status codes.

These status codes control the actions you are allowed to make against an assessment template.

- In Progress
- Active
- Retired

### In Progress

This is the initial status of an assessment template. When an assessment template is at this status, you can edit any part of it. This is the only status at which you can delete a template. If the template is not deleted, it moves to the Active status next.

### Active

This is the status assigned when the assessment template has been deployed for general usage. When an assessment template is at this status, you can make only minor textual edits to it, including, but not limited to, template description, question text correction, question sequencing change, response description, and score range feedback. From this status, you can move the template to Retired; you cannot delete it.

### Retired

When an assessment template is at this status, it is no longer available for general usage. You cannot edit any part of it, and you cannot move it to any other status; however, it can still be copied. Active templates that are deleted revert to this status.

## Assessment Template Score Range: How It's Calculated

The application calculates the score range for an assessment template using the question weights and the ratings and scores assigned to the possible responses for all the questions in the template. This topic explains when the score range is calculated and the components that are used in the calculation, so that you can make the best decision regarding the feedback text to apply to each score

range. In addition to the automatic score range calculation, a manual method for adjusting score range is also available on the administration UI.

## Settings That Affect Score Range

In order for the application to calculate the assessment template score range, you must:

- Apply weights to all template questions.
- Configure ratings and apply them to possible responses for all template questions.
- Apply a score to each of the possible responses for all template questions.

## How Score Range Is Calculated

The score ranges for each rating in an assessment template are determined using the lowest and the highest weighted response scores for each question. So for each rating score range, the lower end of the range starts where the previous rating range ended, and the higher end of the range is the sum of the highest weighted scores that can be attained for that rating.

This table displays a simple example of the components used in the score range calculation.

Question (Weight)	Response (Normalized Score)	Weighted Score	Rating
What is the customer win? (20%)	Lower Operating Cost (100)	20	Excellent
	Higher Revenues (80)	16	Average
	Other (53)	11	Average
	Don't Know (27)	5	Poor
What is our win? (80%)	Reference (60)	48	Average
	Resale (50)	40	Poor
	Partnership (100)	80	Excellent

This table displays the score range calculation based on the components from the first table.

Rating	Score Range
Excellent	65 - 100
Average	46 - 64
Poor	0 - 45

---

### Note

If a template administrator does not use a particular rating while assigning ratings to possible responses, this could result in improper score range calculations. To counteract this problem, the score range calculation uses a built-in correction algorithm to ensure proper score ranges. The correction algorithm

works like this: For a question where a particular rating is skipped, the low score for the skipped rating is calculated to be equal to the high score of the next lower ranked rating. The high score for the skipped rating is calculated to be equal to the low score of the next higher ranked rating.

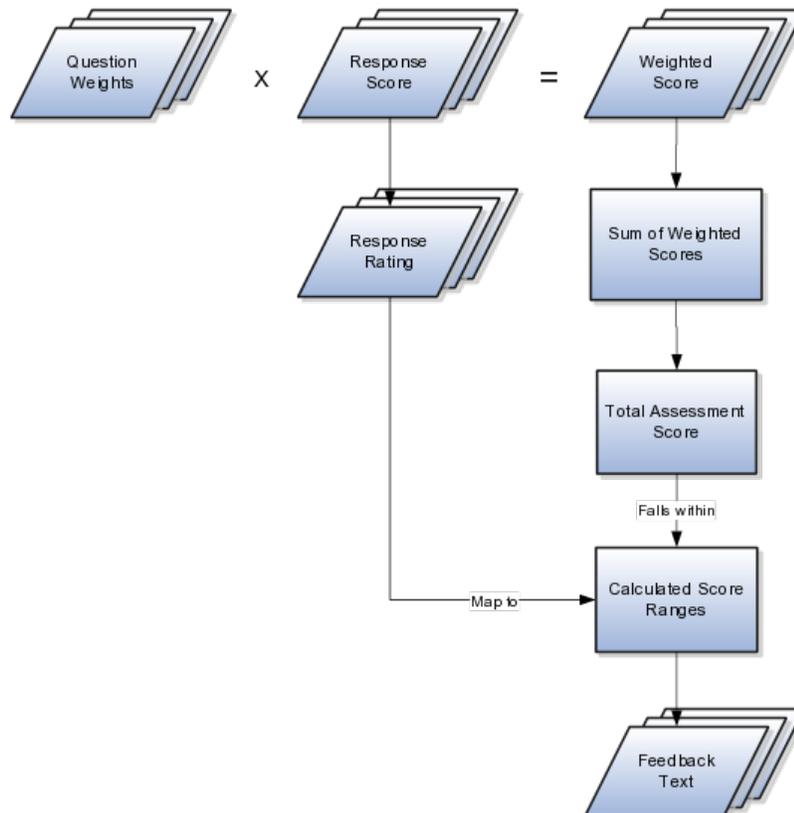
Using the ratings displayed in the tables above, if the rating Average is not used for a question's possible responses, the score range calculation assigns a low score to Average for that question that is equal to the high score of Poor for that question. It also assigns a high score to Average for that question that is equal to the low score of Excellent for that question. This ensures that the overall template score range for Average is calculated to fall between the score ranges for Poor and Excellent.

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## Assessment Template Components: How They Fit Together

The question weight, response score, and response rating are the assessment template components that fit together to calculate and display the overall assessment score, rating, and feedback text.

A question weight is multiplied by a response score to achieve a weighted score for an assessment template response. The weighted scores for all responses are added together to determine the total assessment score. This score will fall within a precalculated score range that is associated with a response rating and feedback text. Therefore, the score range within which the total assessment score falls determines the rating and feedback text to display for a completed assessment.



## Question Weight

The question weight is the relative importance of a question within an assessment template, and it is expressed as a percentage. All of the question weights within a template must total to exactly 100. When an assessment template is used to perform an assessment, a question's weight is multiplied by the score of the response given for the question to produce a weighted score for that response.

## Response Score

A response score is the score assigned to a possible response to a question in the template. The template administrator sets response scores with no upper or lower bounds, and each score is normalized in order to accurately score an assessment that uses the template. The response scores are normalized by assigning a score of 100 to the highest response score, and then all other responses are assigned a normalized score relative to that highest score.

When an assessment template is used to perform an assessment, the normalized score of the response given for the question is multiplied by the question's weight to produce a weighted score for that response.

## Response Rating

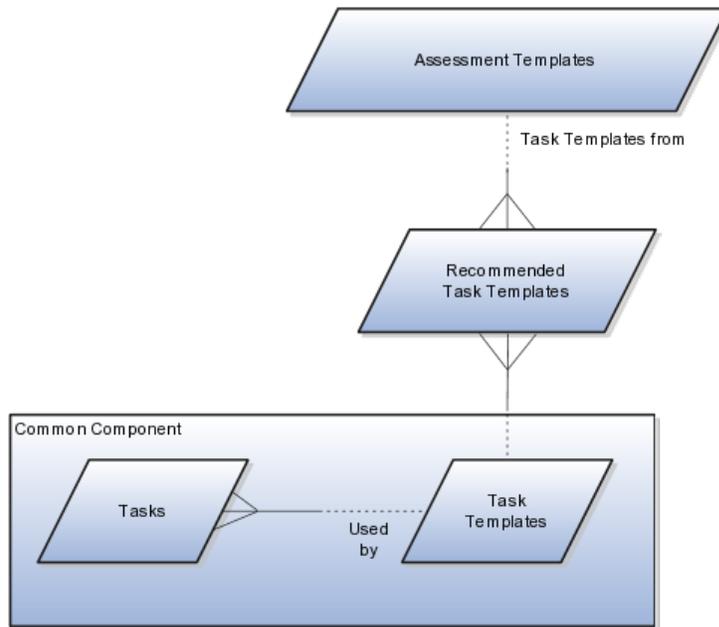
A response rating is the rating assigned to a possible response to a question in the template. A rating is a textual qualification like Excellent or Poor that provides a metric other than a numerical score for qualifying the outcome of an assessment. A response rating is directly related to a response score, and this relationship should ensure that a higher score will translate to a higher rating.

Early in the template creation process, the administrator configures ratings to assign to responses. The administrator then assigns scores and ratings to responses, and the system calculates score ranges based on those entries. Each rating is assigned to a score range, and the administrator is given the opportunity to apply feedback text to the rating-score range combination.

When an assessment template is used to perform an assessment, the weighted scores from all responses are added to determine the total assessment score. That score will fall somewhere within the calculated score ranges, which then determines which rating is assigned to the assessment and what feedback text to display. The maximum total assessment score is 100.

## Assessment Templates and Task Templates : How They Fit Together

One of the steps for creating an assessment template is associating task templates. You would take this step if you want to recommend sets of tasks to be done after an assessment is performed using your template. You associate task templates to ranges of scores in the assessment template, and where the overall assessment score falls within those ranges determines the tasks that are suggested to be performed after the assessment.



### Assessment Template

An assessment template is a set of weighted questions and possible responses used to evaluate the health of a business object such as an opportunity or a lead. An assessment template can be associated with one or more task templates that are recommended based on the outcome of an assessment.

### Task Template

A task template is an instruction to generate a group of related activities. By marking a task template with a subtype of Assessment, you make that task template available for association with assessment templates. The task template's business object type should be the same as that assigned to the assessment template. When an assessment is performed using an assessment template that has associated task templates, one or more task templates are recommended based on the total score of that assessment and can be used to generate a list of activities to perform.

For example, you can associate a task template called Engage Business Development Manager with your assessment template called Potential for Win-Win. Associate the task template with the score range of 86 to 100, so if an assessment using the assessment template Potential for Win-Win scores within that range, the application recommends the Engage Business Development Manager task template and a list of follow-up activities based on that template can be generated.

## FAQs for Configure Opportunity Assessments

### What happens if I include a free-form response for a question?

A score of 0 is assigned for free-form responses.

A free-form response option will have no effect on the overall assessment score. The free-form response offers the opportunity to enter a textual response to a question that does not conform to any of the pre-populated responses provided by the assessment template.

### **What's a Question Group?**

A question group is a logical grouping of questions within an assessment template, and it is used strictly as a category header for those questions. Through careful naming of a question group, you can achieve the benefit of providing the user of the template with an approximate idea of the type of questions to expect in each group.

### **Why am I being asked to enter question weights again?**

This step lists all of the assessment template questions in one place, and provides you with the opportunity to edit weights as necessary to ensure that the sum of all weights totals 100.

### **What are assessment templates?**

Assessment templates enable you to evaluate the health of a particular business object, such as an opportunity product, an opportunity competitor, or an opportunity overall. An assessment template consists of a set of weighted questions and possible responses that are scored. After selecting the appropriate assessment type, you enter responses for all the questions in an assessment template, and achieve a score once the assessment is submitted. This score is used to evaluate the health of the business object. For example, the score could help determine the success rate of the parent opportunity.

## **Define Sales Methods**

### **Sales Stages: Explained**

Sales stages are phases of progress of an opportunity toward its eventual conclusion, either a won sale or a lost sale. A single sales method typically contains a collection of sales stages. For example, you might have five sales stages within a sales method, each with its own attributes and each which serves a different purpose in the progression of the opportunity.

#### **Sales Stage Attributes**

When setting up the sales stage, sales administrators typically define the following attributes:

- **Phase:** Indicates the phase of the sales stage in the sales cycle and provides a way to define groups of sales stages. For example, the first phase of an opportunity sales method might be the Discovery phase,

where the salesperson researches the customer's needs and begins to formulate a plan for what to sell the customer.

- **Order:** Specifies the sequential ordering of stages within a sales method. For example, the first phase of a sales stage might be the Discovery phase, while the last might be the Conclusion phase.
- **Duration:** Estimated average days an opportunity will remain in a sales stage.
- **Stalled Deal Limit:** Number of days that an opportunity is allowed to remain in a particular sales stage. If the opportunity exceeds this limit, the opportunity is considered stalled.

Administrators can use the supplied sales stages or create new sales stages unique to their businesses. Administrators also have the option of adding a sales coach that defines the process steps and recommends resources that can guide the salespeople through each sales stage.

## Sales Methods and Sales Stages: How They Fit Together

Sales methods and sales stages have a one-to-many relationship. In a typical implementation, a single sales method has several sales stages. Each stage within a sales method delineates the progress of an opportunity.

### Sales Methods

A sales method is a formalized approach used to capture sales stages during the sales process. A sales method can encompass all activities associated with different sales stages during the sales process, from prospecting to forecasting to closing opportunities. Sales methods enable best practices to be implemented across sales organizations.

### Sales Stages

Several stages typically exist within a single sales method. Sales stages progress the opportunity toward its conclusion. At the time of opportunity creation, the application sets an opportunity to the first sales stage in the sales method being employed.

## Setting up Sales Methods and Stages: Explained

While default values are seeded, you can configure sales methods and sales statuses to fit your business requirements. You can create new sales methods and sales stages, or modify the supplied ones. In addition, default settings and profile options further determine application behavior.

### Sales Method Setup

Sales methods encapsulate your sales methodology, or formalized approach, toward achieving a sale. Each sales method typically contains a number of sales

stages that delineate the progress of an opportunity. The application comes preconfigured with several sales methods, and you can create your own as well. In addition, you can configure several aspects of sales methods during setup, as discussed in the following table.

Sales Method Aspect	Guidance
Set field in sales method UI	Allows the sales method to be shared across multiple business units.
Enable for revenue line sets checkbox in sales method UI	Allows the sales method to support revenue line set functionality.
Close Window field in sales method UI	Set in days, the value is appended to the current date to set the initial close date of the opportunity. If the Close Window attribute of the sales method has not been set, the application retrieves the default close window from the Opportunity Close Date Default profile option.
Sales Method Default profile option	Set to a valid sales method, specifies the default sales method when an opportunity is initially created. The list is restricted to all methods within the active business unit.

### Sales Stage Setup

Sales stages delineate the progress of an opportunity. During opportunity creation, the application picks the first sales stage within the sales method being employed for the opportunity. The win probability used is the one associated with the sales stage picked, as specified during setup. While editing an opportunity, sales representatives can select another stage, and they can enter a different win probability.

## Manage Opportunity Profile Options

### Opportunity Team Profile Options: Points to Consider

Set profile options to specify the following for Fusion opportunity team functionality:

- The default access level for internal resources added to the sales team
- The default access level for partner resources added to the sales team
- The default function for internal resources added to the sales team
- The default function for partner resources added to the sales team
- The default deal protection period for team members

- Whether to add all members of a territory or only the owner during assignment
- The default rule set to use during team member assignment
- The default rule set to use during team member recommendations
- Whether assignment manager is invoked automatically at opportunity save
- The type of assignment modes to invoke during on-demand or automatic opportunity assignment

## Opportunity Team Profile Settings

The following table lists the profile options that affect opportunity team assignment and other team functionality. If the profile option does not have a default value, the Default Value column in the table is blank.

Profile Option Display Name	Default Value	Effect
Internal Resource Sales Team Access Level Default	Edit	Determines the default access level for an internal resource added to the sales team.
Internal Resource Sales Team Function Default	Integrator	Determines the default function for an internal resource added to the sales team.
Opportunity Assignment Mode		Determines the types of assignment modes allowed during on-demand or automatic opportunity assignment. On demand assignment happens when user selects the assign opportunity action in the UI.
Opportunity Resource Deal Protection Period	15	Specifies the default number of days that an opportunity team member is deal protected.
Partner Resource Sales Team Access Level Default	No Access	Determines the default access level for partner resources added to the opportunity sales team.
Partner Resource Sales Team Function Default	Integrator	Determines the default function for partner resources added to the opportunity sales team.
Territory Based Resource Assignment Style	All	Determines whether to copy all territory resources to the opportunity team or just the territory owner during territory assignment.
Sales Team Member Assignment Rule Set Group		Specifies the rule set name that is used during rule-based assignment triggered by assignment manager.
Sales Team Member Recommendation Rule Set Group		Specifies the rule set name used during rule-based assignment when a user invokes the team recommendations functionality.

Assignment Submission at Save Enabled	No	Determines whether the assignment engine is invoked automatically when an opportunity is saved.
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## Configure Customer Center for Opportunity Management

### Customer Center: Explained

Oracle Fusion Customer Center enables the comprehensive management of customer information. Customer Center collects data from various systems and presents them for management in one location.

Following are some of the capabilities of Customer Center:

- Create customers and contacts
- Update customers and contacts
- Maintain customer hierarchies
- Maintain competitor information

When working with Customer Center, be aware of the following terminology used through out the application:

- Sales prospect
- Sales account
- Customer
- Legal entity
- Billing account

#### Sales Prospect

A sales prospect is a prospective sell-to entity, or person, at an existing or potential customer used to define Leads. A prospect is the lowest level representation of a business entity that your company's marketing processes will track and act upon. The sales prospect does not have a sell-to address. You can create a sales prospect from a party that does not have a sell-to address when you create the first lead for that party. You can also create sales prospects in Customer Center and by importing them in bulk.

You can create leads against sales prospects, but a sales prospect must be qualified and converted to a sales account before you can create opportunities for it. To qualify and convert a sales prospect, a set of business criteria or rules must be satisfied. For example, the prospect may be required to meet the criteria for account assignment.

#### Sales Account

A sales account is a specific sell-to entity within a given customer. You can create leads and opportunities against sales accounts. A single customer might have a collection of sales accounts. To avoid confusion when assigning territories to the

account, each sales account has only one sell-to address. Typically, a sales team manages a sales account. The sales team is comprised of resources assigned to the territories associated with the sales account. Additionally, a profile option determines whether a sales account is a named sales account, an existing sales account, and the account owner. Named sales accounts are typically strategic accounts assigned to dedicated territories. An existing sales account is one where there is an existing financial relationship or had previous installs. You can create sales accounts in Customer Center and by importing them in bulk.

## **Customer**

Within Customer Relations Management (CRM), sales accounts and sales prospects are collectively referred to as Customers. There are three types of customers: Organization, Person, and Group. Additionally, a Customer also can have representations as a legal entity and a billing account that are expressed as root nodes in a hierarchy to the respective sales accounts for that customer.

View the Customer Hierarchy: A customer's hierarchy represents a holistic view of the customer's structure, showing you the customer type, the parent for the customer, the subsidiaries of the customer, as well as rolled up revenue analysis data.

## **Legal Entity**

A legal entity is a party that can enter into legal contracts or a business relationship, and be sued if it fails to meet contractual obligations. There are two types of legal entities: internal and external. A customer with a party usage of Legal Entity is considered an internal legal entity and is used for interdivisional selling within your own company. A customer with a party usage of External Legal Entity is any external customer who fits the definition of legal entity. Legal entities may also be used to group multiple sales accounts, sales prospects and other classes of entities or parties.

## **Billing Account**

A billing account is a party that represents the financial account transactional entity for a given Customer.

# **Customer Center Trees: Explained**

There are two types of Oracle Fusion Customer Center trees. Each tree displays a different set of nodes based on party type. The information that you are able to view and edit on each node depends upon your security privileges and your membership status on the sales account team

The two types of Customer Center trees are:

- Customer Tree
- Contact Tree

## **Customer Tree**

The customer tree displays similar nodes for the three customer types, organization, person, and group, such as Profile, Contacts, Sales Account Team,

or Assessment. If you are a member of the sales account team with at least Edit level access or you have the Sales Party Administration duty, you can update information on the following nodes: contacts, organization chart, classifications, assessments, classifications, assessments, notes and, account assessments. Only those users with Sales Party Administration duty or Full level access on the sales account team and profile nodes can update the members of the sales account team

### **Contact Tree**

The contact tree displays nodes for contacts with the contact profile and other related information such as the Profile (contact details), interactions with the contact, notes, and so on. Leads and Opportunity applications can be accessed here. All nodes on the contract tree are visible to all users.

## **Configure Opportunity Assignment**

### **Opportunity Team Assignment: Explained**

Opportunity assignment occurs in one of two ways: Team members (resources) are automatically assigned to an opportunity by the Assignment Manager module (part of Oracle Fusion Work Management), or users with sufficient permissions add resources to the sales team using the Oracle Fusion Opportunity Management UI.

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#### **Note**

Only users with full access to the opportunity can enable or disable the lock assignment feature for sales team members. Lock assignment is useful for an opportunity owner who wants to remain on the opportunity but intends to have Assignment Manager automatically assign other resources to the opportunity.

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The following sections discuss ways to assign team members to an opportunity.

#### **Batch Method**

The preferred way to assign team members is using a batch process. The two processes described below can be used independently or in conjunction with one another.

- **Request Revenue Territory Assignment:** Use this process to invoke territory-based assignment on opportunity revenue lines. During this process, every revenue line in the opportunity batch is evaluated individually. Territories whose dimensions match the dimensional attributes of a given revenue line are then assigned to that line. Depending on the setting of the profile option, Territory Based Resource Assignment Style, the system will then either add the owners or all members of the assigned territories to the opportunity team.
- **Request Opportunity Resource Assignment:** Use this process to invoke rule-based assignment on an opportunity. During this process, Assignment Manager executes a set of rules, as defined in the profile

option, Sales Team Member Assignment Rule Set Group, to find matching candidates for the opportunity. If matching candidates are found, they are added to the opportunity team. Note that team members for whom lock assignment is disabled will be replaced if they no longer match the assignment rules.

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### **Important**

These batch processes should not be requested to run in parallel against the same opportunity batch, to avoid potential locking issues. The scheduling service checks for such incompatibilities prior to initiating the assignment process.

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### **Manual Method**

Users with full access to an opportunity can manually assign or re-assign sales team members, including the opportunity owner. If an opportunity is re-assigned to a new owner manually, the original owner stays on the sales team as a non-primary team member, unless he is manually removed from the team.

### **Resource Recommendations**

From within the opportunity, users can select the View Recommendations action to request that the Assignment Manager retrieve sales team member recommendations based on predefined assignment rules. The user can then add candidates from the recommended list to the sales team. The system will not recommend resources that are already on the opportunity sales team.

The profile option, Sales Team Member Recommendation Rule Set Group, specifies the assignment rule set group to be used when recommending resources.

### **On-Demand Method**

From within an opportunity, sales representatives can use the assign opportunity action to invoke Assignment Manager to automatically assign, in real time, resources to the opportunity. Based on the setting of the profile option, Opportunity Assignment Mode, Assignment Manager may invoke territory-based assignment, rule-based assignment, or both.

### **Saving an Opportunity**

If the profile option, Assignment Submission at Save Enabled, is yes, Assignment Manager will be invoked to assign the entire opportunity upon saving. Similar to the on-demand method, Assignment Manager may invoke territory-based assignment, rule-based assignment, or both based on the profile option, Opportunity Assignment Mode.

### **Territory Proposal Activation**

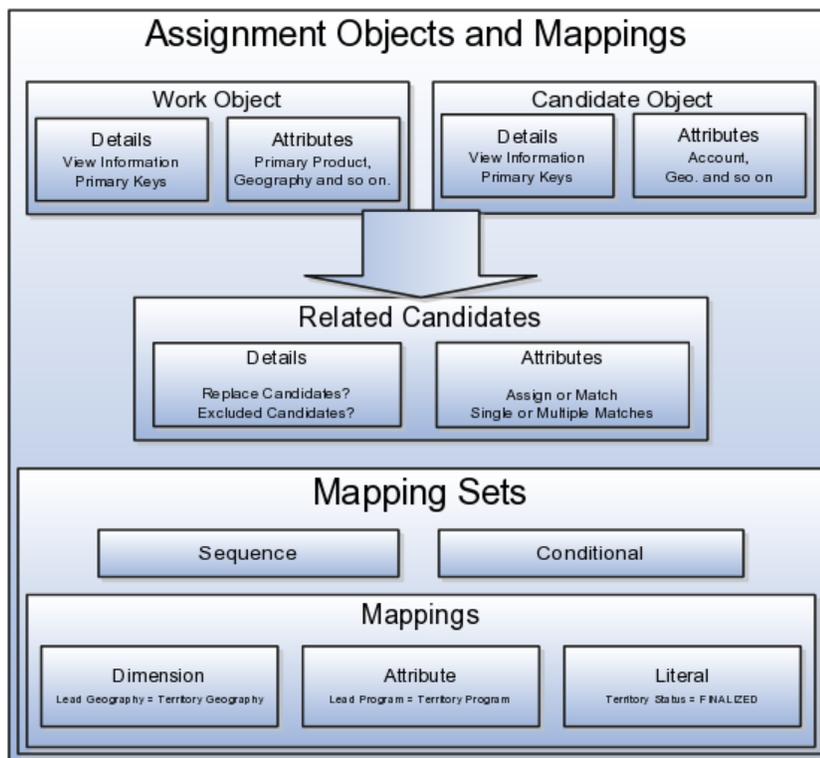
Following a territory proposal activation, the Oracle Fusion Sales BPEL event listener identifies changed territories and impacted opportunities and automatically assigns them. Territory-based assignment is invoked at this time to assign territories to opportunity revenue lines. Again, depending on the setting of the profile option, Territory Based Resource Assignment Style, the application either adds the owners or all members of the assigned territories to the opportunity team.

Note that territory proposal activation does not trigger rule-based assignment.

## Assignment Object Components: How They Work Together

The work object, candidate object, and attributes are components that fit together to create assignment objects that are used in rule-based and territory-based assignment. Work objects are business objects that require assignment, such as leads and opportunities. Candidate objects are business objects, such as resources and territories, that are assigned to work objects.

When you create candidate objects, you can select attributes for them that are later used in rules or mappings. These candidate objects also become candidates that are available for association when you create work objects. When you create work objects, you can select attributes for them also, as well as associating one or more candidates.



### Work Objects

A work object is a business object that requires assignment such as a lead or an opportunity. Creating a work object involves entering its application information, selecting its attributes to use during assignment, and associating one or more candidates.

## Candidate Objects

A candidate object is a business object, such as a resource or a territory, that is associated with one or more work objects for eventual assignment. Creating a candidate object involves entering its application information and selecting its attributes to use in rules or mappings. A special type of candidate object is a classification object. This type of candidate object does not represent a business object that gets assigned to a work object. It is used only with classification rules and is used primarily to rank or qualify leads.

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### Note

As candidate objects are created, they become available as candidates that can be associated with one or more work objects as part of the work object creation process.

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The administrator needs to define the association between the work object and candidate object. For example, the Lead work object may have an association with both the Territory candidate object and the Resource candidate object. This implies that Assignment Manager can be used to assign Territories and Resources to a lead.

In the related Candidates tab for the Revenue work object an administrator can define the association between the work object and candidate object. For example, the revenue work object may have an association with both the territory candidate object and the credit allocation template candidate object. This association indicates that Assignment Manager can be used to assign both territories and credit allocation templates to revenue lines.

## Related Candidates

To relate a candidate object to a work object, use the following fields:

- **Assign Candidates:** Indicates that Assignment Manager performs the assignment. If not set, then Assignment Manager is used to find the matching candidates, which are then passed to the calling application to update the work object.
- **Custom Logic:** Indicates that Assignment Manager passes the result of the assignment matching to the callback function of the work object. For example, Opportunity Management uses custom logic that updates the sales team with the territory members. It stamps the territories onto the revenue line and adds the territory team members (resources) to the opportunity sales team.
- **Merge Assignment Candidates:** Controls whether the matching assignment candidates identified from processing each set of mappings should be merged. This is used to drive the merging of matching candidates when multiple mapping sets are used in assignment processing. If the check box is checked, then the candidates are merged. The default is unchecked.
- **Keep Manual Candidates:** Indicates that manually assigned candidates are retained during assignment processing. This option can be used to prevent the removal of manually added candidates during reassignment.

Sales Account and Opportunity Management have implemented their own lock assignment features.

- **Replace Candidates:** Determines whether unqualified candidates are removed from a team when an assignment runs. For example, the first time that Assignment Manager runs, a territory is assigned to a sales lead. When the reassignment process runs following a territory proposal activation, the territory is no longer valid. If Replace Candidates is set, then the territory is removed from the sales lead.
- **Candidate Exclusion:** Sales leads have a related object, which stores the excluded candidates for each sales lead. Assignment Manager accesses this information, which prevents assignment of the work object to an excluded candidate.
- **Parent Attribute:** Used by territory based assignment to determine the hierarchy of matching territories, eliminate all parent territories, and only return and assign the matching leaf node Territories. If this attribute is not used, then all matching territories (parent or leaf ) are returned and assigned.
- **Candidate Differentiation Attribute:** Stores the attribute on the candidate object that is used for discriminating matching candidates. For example, in Revenue line assignment, this attribute enables matching leaf territories of many territory types (such as Prime, Channel Sales Manager, and so on) to be assigned. The Candidate Discriminator Attribute is only relevant for territory-based assignment and can only be selected if a parent attribute has been selected.
- **Coverage Attribute:** The territory attribute used to denote whether the candidate in the matching candidate list has a regular, included, or excluded coverage.
- **Maximum Number of Candidates:** The maximum number of candidates returned for the work object and candidate object combination. The default value is 100.
- **Manual Attributes:** The attribute that identifies a candidate was manually assigned, rather than by the system. This attribute is used with the Keep Manual Candidates attribute.
- **Keep Manual Candidates:** A flag to retain manually assigned candidates when assigning or re-assigning a work object. This option is only relevant if the manual attribute is defined and the Assigned Candidates option is checked.

**Replace Candidates:** Indicates whether non matching candidates will be removed when re-assigning a work object. In an example scenario, in the first time assignment runs, territory A is assigned to a sales lead and there is a change within the territory definition. When the sales lead is reassigned, territory A is no longer valid. If this option was selected, then territory A is removed from the sales lead.

- **Score Attribute:** The score attribute in which the calculated score is stored.
- **System Attribute:** The attribute that identifies a candidate was assigned by the system, rather than manually.

## Selecting Attributes

Attributes are elements in the view object defined for an assignment object. For each assignment object, you can select one or more attributes that you want to use when configuring assignment rules or mappings. For example, for a work object like sales account, you might choose the attributes of Named Account Flag, Customer Size, and Organization Type. When you configure assignment mappings for the sales account work object, your chosen attributes are available. You could create a mapping for Sales Account using the Named Account Flag attribute.

When selecting attributes for a candidate object, you will not only select the attributes you want to use when configuring assignment rules and mappings that involve that candidate object, but you also want to select the attributes for that candidate object that you want to appear in the screen that displays recommended candidates after assignment manager is run. For example, if a candidate object is resource (sales representative), and you want to show sales representatives' first names, last names, and phone numbers when they are recommended during assignment processing, you need to select the attributes for the resource candidate object that correspond to first name, last name, and phone number, and specify the order in which these attributes appear in the recommended candidates screen.

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### Note

This feature is not used by any CRM applications at this time.

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## Adding an Assignment Object

The Manage Assignment Objects pages enable you to define and edit the Work and Candidate objects as well as define any territory-based mappings. The figure above shows the relationship between the work and candidate objects and the mapping of the matching candidates to work objects.

When you add or edit a work or candidate object there are several key pieces of information that are required in the definition:

- Name: a unique name for the object with an optional description.
- Code: a unique code used in processing the object.
- Work/Candidate Object check boxes: indicates if the object is a work object, candidate object or both.
- Application Module: an Oracle Application Development Framework (ADF) business component that encapsulates the business service methods and UI-aware data model for a logical unit of work related to an end-user task. Enter the fully qualified definition name of the consumer application, Application Module. Valid for top level Work and Candidate objects. Child objects automatically inherit this value from its parent.
- Application Module configuration: Valid for Top Level Work and Candidate objects except Classification Candidate objects. Child objects will automatically inherit this value from its parent.
- View Object Instance: used to define the data model of a view object component when designing an application module, for example,

Opportunity. Valid for all levels of Work and Candidate objects except Classification Candidate objects.

- View Criteria may be defined to filter the information for the rows of a view object collection. Valid for top level Work and Candidate objects except Classification Candidate objects.
- Primary Key Attribute 1: First or only attribute that makes up the object primary key. Valid for top level Work and Candidate objects except Classification Candidate objects.
- Refresh Interval: the number of minutes between refreshes of candidate object data. The default setting is 0 minutes. Valid for top level Candidate objects except Classification Candidate objects.
- Initial Caches: The initial size of the cache when processing an object. This value will be used the first time the engine processes objects or following a server bounce. The default value is 2, and the maximum value is 20. Only valid for top level Candidate objects except Classification Candidate objects. All Work Objects that are used for scoring, Lead, for example, use the Product Level (MOW\_SCORING\_INITIAL\_CACHES) Initial caches for scoring rules profile option value.
- Maximum Caches: The maximum size of the pool/cache when processing the object. The default value is 5, and the maximum value is 25. Only valid for top level Candidate objects.

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#### Note

All Work Objects that are used for scoring, Lead for example, use the Product Level (MOW\_SCORING\_MAX\_CACHES) Maximum caches for scoring rules profile option value.

- 
- Score Attribute: The attribute on the object that stores the total calculated score after an assignment request has been processed. Valid for top level Work objects only.
  - Assignment Date Attribute: The attribute on the object that stores the assignment date after an assignment request has been processed. Valid for top level Work objects.
  - Exclude Assignment Attribute: The attribute on the object that stores the setting for excluding a work object from assignment. Valid for top level Work objects.

#### Adding Assignment Object Attributes

Assignment Manager allows users to specify a set of attributes from the assignment object VO to be used during the assignment evaluation. The assignment engine will load these Assignment Object Attributes for each assignment object VO row, in addition to any primary key or assignment attributes. This is designed to improve performance by not loading those attributes not used for the assignment evaluation.

Assignment Object Attributes should be defined for each work object and any child objects as well as each candidate object to be used by the Assignment Engine.

- **View Object Attribute:** Name of each attribute in the view object defined for the assignment object. Assignment Rules or Mappings can be configured using these attributes. For Candidates Objects, the attributes that appear in the interactive assignment UI should also be selected.
- **Candidate Information Sequence:** The sequence that this attribute is displayed in the Interactive Assignment UI.

## Setting Up Assignment Mappings

Assignment mappings drive territory-based assignments. These mappings identify the dimensions, attributes, and territory filtering used in territory-based assignment processing. Dimension mappings and some attribute mappings have a sequence which controls the order in which these mappings are used during territory matching. Mappings that do not have a sequence are used together at the end of the matching process. A default set of mappings is seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Assignment Manager has an indicator in the related **Candidates** region to control whether to merge the matching assignment candidates identified from processing each set of mappings. This indicator is used to drive the merging of matching candidates when multiple mapping sets are used in assignment processing. If the box is checked, then the candidates are merged. The default is unchecked.

You can use the following assignment mappings:

- **Attribute Mapping:** An example is assigning territories to a sales lead where the territory partner program ID is the same as the sales lead partner program ID. In this case, the territory is matched when the territory program ID is equal to the sales lead attribute program ID.
- **Dimension Mapping:** An example is assigning territories to opportunity revenue lines based on the product associated with the revenue line. In this case, the product dimension is selected as the mapping type. The candidate object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the revenue line.
- **Mapping using alternative attributes:** Using the same scenario, if a revenue line does not have a product assigned to it, but has a product group assigned, add the low sequence and high sequence attributes for product group are entered for the work object alternate low and high attributes.
- **Mapping using default values:** Using the same scenario, if the low sequence and high sequence attributes for product on a specific revenue line do not contain values, then the low and high default values for the product attribute for all revenue lines are used.
- **Literal Mapping:** A way of filtering the matched territories based on specific values of a territory attribute. For example, by only matching with territories that have a sales account centric coverage model. For example, territory coverage model equals `SALES_ACCOUNT_CENTRIC`.

## Configuring Assignment Manager: Critical Choices

Assignment is the process for selecting a candidate as an object and executing the association to a work object. Assignment consists of two phases. The first phase is the matching phase, where matching rules or mappings are evaluated to find the right assignees from a list of possible candidates. The second phase is the disposition phase, where the disposition, or assignment, of matching candidates is handled. Assignment Manager is the tool used to establish the business objects that require assignment, and to create the rules and mappings that dictate the selection and assignment of resources and territories. Candidates are potential assignees for a work object. A work object is a representation of an application business object inside Assignment Manager. A work object captures the attributes of a business object and associated child objects to be used for matching purpose. To best plan the configuration of Assignment Manager, you should consider the following points:

- Business objects
- Attributes
- Resources and territories
- Assignment disposition
- Mappings sets and mappings
- Rules

### Business Objects

A business object is a data entity or a collection of data treated as a unit, such as a sales account, an opportunity, or a lead. Any business object that requires the assignment to act upon it is considered a work object by Assignment Manager. The work object is a representation of the business object, and mappings and rules are developed to ensure timely and accurate assignment of candidates (for example, territories or resources) to those work objects. When configuring Assignment Manager, carefully consider which of your business objects require assignment, and create work objects only for those that do.

A set of business or assignment objects is seeded for the assignment of territories or resources to sales accounts, opportunities, and leads.

### Assignment Disposition

After you determine the business objects (work objects) that require assignment and the candidate objects that you will assign to them, you must decide how the matching candidate assignment disposition will be carried out. Consider these questions:

- Do you want to assign a single resource or multiple resources?
- Do you want to automatically assign matching candidates or run custom logic against matching candidates?

- Do you want to record the matching candidate score on the work object?
- Do you want to retain manually assigned candidates when assignments are processed?
- Do you want to replace disqualified candidates when assignments are processed?

## Attributes

To ensure that candidates are properly assigned to work objects, create mappings and rules. These mappings and rules employ attributes to determine the best assignments. As you set up work objects and candidate objects in Assignment Manager, also select the attributes of those objects that you want to use in your mappings and rules. For example, you might want to assign a resource such as a specific sales representative to a business object, such as opportunity, based on the risk level of the opportunity. In this case, when you create the opportunity work object and the sales representative candidate object, you will select the attribute of opportunity that corresponds with risk level, and the attribute of the sales representative that corresponds with skill name or e-mail address. Selecting these attributes makes them available for mappings and for conditions on your rules, so ensure that you select the attributes that reflect the criteria that you want to use for matching candidate objects to work objects.

## Mappings Sets and Mappings

Assignment mapping sets and their related mappings drive territory-based assignment. The mapping sets determine the sequence of mappings and which mappings are used in territory-based assignment. The mappings identify the dimensions, attributes, and territory filtering used in the assignment processing. Default mapping sets and their related mappings are seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Create the mappings using the work objects, candidate objects, and attributes that you already established. When designing your mappings, carefully consider the dimensions and attributes you use in your territory structure and how you want to match these territory candidates to work objects.

## Rules

Rules are defined for the execution of rule-based assignment. Rules are designed to return candidates based on whether these candidates match a set of criteria, are within a defined scoring range, or are of a specific classification.

Create the rules using the work objects, candidate objects, and attributes that you already established. When designing your rules, carefully consider how you want to match candidates to work objects. For example, would you want resources assigned based on their geographic location, their product knowledge, on the status or score of an object, or a combination of any of these attributes? Do you want to match candidates only, or would you like to match candidates and score them? In a multiple-candidate scenario, do you want to assign all matching candidates or only those who achieve higher than a specific score? Consider these questions before creating rules.

## Creating Assignment Mappings: Examples

For territory-based assignment, you create work-object-to-candidate-object mappings during assignment object creation. These mappings are used to make candidate assignments. You can create multiple types of mappings for assignments. The following scenarios illustrate these different mappings:

- Creating an attribute mapping
- Creating a dimension mapping
- Creating a literal mapping

### Creating an Attribute Mapping

You want to assign territories to a sales lead when the territory program ID is the same as the sales lead program ID. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Select the territory when the attribute territory program ID is equal to the sales lead attribute program ID.

Another example would be if you want to assign territories to a sales lead based when the territory manual account inclusion or exclusion is the same as the account on the sales lead. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Match the territory when the territory attribute account node integration (AccountNodeIntgId) ID is equal to the sales lead attribute party ID.

### Creating a Dimension Mapping

You want to assign territories to opportunity revenue lines based on the product associated with the revenue line. Create a mapping where the work object is opportunity revenue line, and the candidate object is territory. Select the product dimension as the mapping type. The candidate object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the revenue line. For example, the low sequence attribute for product on the revenue line might be called `ProdSeqLow`.

- Mapping using alternative attributes: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated with the revenue line, you might encounter a situation where a revenue line does not have a product assigned to it, but it does have a product group assigned to it. Create the same mapping that you created for the dimension mapping scenario, and add the names of the low sequence and high sequence attributes for product group for the work object alternate low and high attributes. For example, the alternate low sequence attribute for product group on the revenue line might be called `ProdGrpSeqLow`.
- Mapping using default values: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated with the revenue line, you might encounter a situation where the low sequence and high sequence attributes for product on a revenue line do not contain values when assignments are processed. Create the same

mapping that you created for the dimension mapping scenario, and add low and high default values for the product attribute for revenue lines.

### Creating a Literal Mapping

Literal mappings are a way of filtering the matched territories based on specific values of a territory attribute. You want to find only territories that are finalized (for example, territory status equals FINALIZED).

## Candidate Refresh: Explained

Rule-based assignment requests that identify matching candidates or scores for matching candidates use candidate data such as resources. This candidate data is loaded into a cache and used for each assignment request until the cache is refreshed. Oracle Fusion Assignment Manager supports the ability to refresh the candidate data cache at regular intervals. The Fusion Enterprise Scheduling Service (ESS) process **Refresh Cache** is used to set an indicator that the candidate data should be refreshed the next time there is an assignment request using that candidate.

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### Note

This feature affects rule-based assignment using the rule set types of matching candidates or matching candidates with scoring only.

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Implementations may schedule this process daily, weekly, and so on, as required by the frequency of changes to the candidates. Consider how often the candidate data will change and how critical it is to have the changes available for use in assignment. For example, resource details may change daily and therefore the resource candidate data cache for Lead Management may need to be updated once per day.

As indicated in the note above, the **Refresh Cache** process should be defined for each candidate object and application that uses Rules-based Assignment candidate matching or candidate matching with scores. The process has the following parameters:

- Candidate Object Code, for example `Resource_Candidate_Object`.
- Owner Module, such as `sales`, or `leadMgmt`

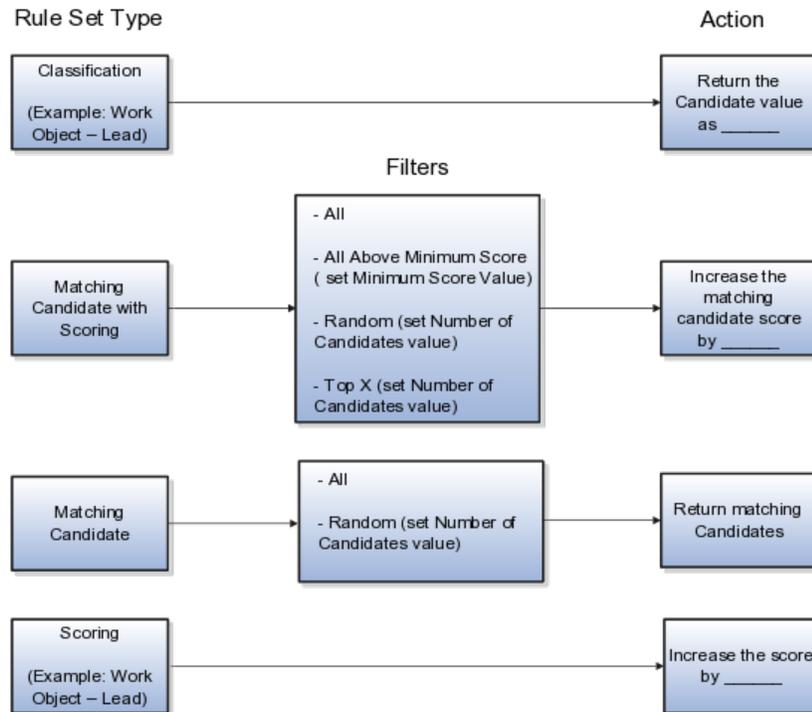
For example, there would be one ESS process scheduled for Lead Management with the parameters: `Resource_Candidate_Object_Lead/leadMgmt`. Sales would need two processes scheduled: One with parameters `Resource_Candidate_Object/sales` and the other with the parameters `Credit_Allocation_Template_Candidate_Object/sales`.

## Rule Set Components: How They Work Together

The rule set type, filter settings, and rule action are rule set components that work together to tell the assignment manager engine how to process rule-based assignments for work objects.

A rule set type is set at the rule set level; and two of the rule set types, Matching Candidate with Scoring and Matching Candidate, require additional filter

settings. At the rule level within a rule set, an action setting is entered that determines the action that is performed when a rule is evaluated as true. The rule action works in conjunction with the rule set type.



## Rule Set Type

The rule set type on the rule set determines the type of rule-based assignment processing to be performed. For example, when the rule set type is Matching Candidate, the candidates that match the conditions of the rules evaluated as true by the assignment engine are assigned to the work object. The number of matching candidates that are assigned to the work object is determined by the rule set filter settings.

## Filter Settings

The filter settings are used in conjunction with two of the rule set types: Matching Candidate and Matching Candidate with Scoring. The filters allow you to indicate how many matching candidates you want to assign to the work object. When set to All Above Minimum Score, all of the matching candidates above a particular score are assigned to the work object. Set the score in the Minimum Score field.

When set to Top X, a number of matching candidates with the highest scores are assigned to the work object. Use the Number of Candidates field to specify how many top matching candidates to assign.

When the rule set type is Matching Candidate, and the filter is set to Random, a random selection of matching candidates are assigned to the work object. When the rule set type is Matching Candidate with Scoring, and the filter is set to Random, a random selection of matching candidates with the highest scores is assigned to the work object. Use the Number of Candidates field to specify how many random matching candidates to assign.

### Action

The action setting determines the action that is performed when a rule is evaluated as true. The action setting is the one component that is set at the rule level rather than the rule set level; however, it does work in conjunction with the rule set type. When the rule set type is Classification, the rule action can only be Return the Candidate value as <value>. For example, the work object for a rule set is Lead, and the candidate object is a classification object called Lead Qualification. The rule set type is set to Classification, and the action for one of the rules in that set is Return the candidate value as QUALIFIED. If that rule is evaluated as true, the Lead Status for the Lead being classified is set to Qualified.

When the rule set type is Matching Candidate, the rule action can only be Return matching candidates. If a rule with that action is evaluated as true, the candidates that match the conditions for that rule are assigned. The filter setting at the rule set level determines whether all matching candidates are assigned (All), or a random number of matching candidates are assigned (Random).

When the rule set type is Matching Candidate with Scoring, the rule action can only be Increase the matching candidate score by <value>. If a rule with that action is evaluated as true, the candidates that match the conditions for that rule get the value in the action added to their score. For example, the work object for a rule set is Opportunity, and the candidate object is Resources. The rule set type is set to Matching Candidate with Scoring, and the action for one of the rules in that set is Increase the matching candidate score by 10. If that rule is evaluated as true, the resources that match the conditions for that rule get 10 added to their scores. The scores are cumulative, so if any of the resources that matched the conditions in the rule in the example also match the conditions for other true rules in the set, those territories get additional values added to their current score of 10. The filter setting at the rule set level determines whether all matching candidates are assigned (All), or all matching candidates above a specified score are assigned (All Above Minimum Score), or a random selection of matching candidates with the highest scores are assigned (Random), or a number of matching candidates with the highest scores are assigned (Top X).

When the rule set type is Scoring, the rule action can only be Increase the score by <value>. If a rule with that action is evaluated as true, the value in the action is added to the score of the work object associated with the rule set. For example, the work object for a rule set is Lead. The rule set type is set to Scoring, and the action for one of the rules in that set is Increase the score by 20. If that rule is evaluated as true, the score for the Lead is increased by 20.

## Creating Assignment Rules: Examples

Assignment rules are created using work objects, candidate objects, attributes, conditions and actions. The assignment engine uses your rules to evaluate and

recommend candidate assignments for specified work objects. There are multiple types of rules you can create. The following scenarios illustrate each type:

### **Managing Classification Rules**

When the following attributes for leads are set as specified, you want to classify those leads as qualified:

- Lead Customer is NULL
- Lead Product is NULL

Create a rule set with a rule set type of Classification Rule. Set the work object as lead and the candidate object as lead qualification. Create a rule with the two conditions that match the attribute settings you want a lead to have in order to be considered a unqualified lead. Using the Lead Product condition as an example, you would choose the Lead attribute name PrimaryInvProdId, and then select the equals (=) operator. Finally, enter the value of NULL. Create your remaining condition, and then enter the action for your rule is Return the Candidate Value As UNQUALIFIED.

### **Managing Scoring Rules**

When the following attribute for leads are set as specified, you want to increase those leads' scores by 150:

- Lead Time Frame is in 3 months, 6 months

When the following attributes for leads are set as specified, you want to increase those leads' scores by 100:

- Budget Status is Approved
- Budget Amount is > 500000

Create a rule set with a rule set type of Scoring Rule. Set the work object as lead, and create the first rule with one condition that matches the attribute settings you want a lead to have in order to add 150 to its score. Using the Lead TimeFrame condition as an example, you would choose the attribute name TimeFrame, and then select the in (=) operator. Finally, enter the values 3 months and 6 months. Then enter the action for your rule as Increase the Score by 150. Create your remaining rule with two conditions and action to Increase the Score by 100.

### **Managing Matching Candidate Rules**

Identify a single candidate territory for your sales leads in one line of business and all territories for the other. Create a rule set with a rule set type of Matching Candidate Rule, a filter type of Random, and Number of Candidates of 1. Set the work object as sales lead and the candidate object as sales lead territory, and create a rule with two conditions. The first condition matches the response channel on the Sales Lead equals LOB1, and the second rule matches the territory type equals ignoring case Partner. If this rule is true, then only a single random matching partner territory will be assigned to the Sales Lead.

For the second line of business create a rule with one condition that matches the response channel on the Sales Lead equals LOB2. If this rule is true then only matching territories will be assigned to the Sales Lead.

## Managing Matching Candidate with Scoring Rules

Assign different country specialists to opportunities in some European countries based on the Green Server, the country, and the risk level of the Opportunity.

Create a rule set with a rule set type of Matching Candidate with Scoring Rule, a filter type of All Above Minimum Score, and the minimum score set to 20. Set the work object as opportunity and the candidate object as resource, and create two rules each with two conditions.

The first rule has two conditions. First, choose the work object of Opportunity, choose the attribute name RevenueProduct and select the equals (=) operator, and then enter a value of Green Server. For the second condition choose the work object of Resource, and then choose the attribute name Name, select the equals (=) operator, and then enter a value of John Brooks. Select the action for the rule as Increase the Matching Candidate Score by 10.

The second rule has three conditions. First, choose the work object of Opportunity, choose the attribute name RevenueProduct, select the equals (=) operator, and then enter a value of Green Server. For the second condition choose the work object of Opportunity, choose the attribute name Country, select the In operator, and then select the values France, Germany, Netherlands, Belgium, Spain, and Portugal. For the third condition choose the work object of Resource, and then choose the attribute name Name, select the equals (=) operator, and then enter a value of Claire Stevens. Select the action for the rule as Increase the Matching Candidate Score by 20.

The second rule has three conditions. First, choose the work object of Opportunity, choose the attribute name RevenueProduct, select the equals (=) operator, and then enter a value of Green Server. For the second condition choose the work object of Resource, choose the attribute name Name, select the equals (=) operator, and then enter a value of Claire Stevens. Select the action for the rule as Increase the Matching Candidate Score by 20.

## Using Territory-Based Assignment with Rule-Based Filtering: Example

In this example, sales leads with sales accounts can be assigned one or more territories and supplemental lead team resources. Prospect leads can be assigned one or more resources. Assignment Manager is used to determine matching territories as well as matching resources. In Oracle Fusion Partner Relationship Management implementations, all territories (prime, overlay, partner, and so on) matching a given lead may be identified. Rule filtering may then be used to affect the type of territories (partner versus prime) that are assigned based on the value of specific attributes (for example, sales channel or deal size) on the lead.

### Scenario

Acme, Inc., wants to assign new leads to the correct territory and then assign them to the correct sales lead. If there is no sales channel assigned, determine if the deal should go to a partner or remain internal. If the deal is internal then only the prime territories are assigned. If the deal is pushed to a partner, a channel manager is also assigned to oversee the deal.

## Transaction Details

The primary marketing business objects processed by the Assignment engine are Leads. The assignment of territories is the primary means of assigning the appropriate sales people to the lead. Rule filtering may also be used to filter the territories when the sales channel is not identified. Prospect leads are processed by the assignment engine in order to identify additional resources based on the information on the leads (such as deal size)

Oracle Fusion Lead Management calls the Assignment Manager with the Work Object designated as Lead and territory as the Candidate Object with the assignment type of territory-based assignment. This determines the list of territories. Assignment processing then calls the Rule Set Group that contains the rules for the territory-based assignment with rule filtering.

While the territory-based assignment delivers a list of territories, the rules can fine tune the assignment process:

1. Rule for SALES CHANNEL != NULL
  - a. SalesLead.Sales Channel != NULL
  - b. Action: Return matching candidates
2. RULE for SALES CHANNEL = NULL, Assign Channel Manager
  - a. Sales Lead.Sales Channel = NULL
  - b. Sales Deal.Deal SizeAttribute < 1,000,000
  - c. Territory.Territory Type In Partner, Sales Channel Manager
  - d. Action: Return matching candidates
3. RULE for SALES CHANNEL = NULL, Assign Prime
  - a. Sales Lead.Sales Channel = NULL
  - b. Sales Deal.Deal SizeAttribute > 1,000,000
  - c. Territory.Territory Type = Prime
  - d. Action: Return matching candidates

## Analysis

When the lead comes in, it needs to be assigned to a territory for follow up. Based on the above rules, you can determine if this is a smaller deal that can be handled by your partners (and a Sales Channel Manager to oversee), or it is a larger deal that needs to be followed up by the internal sales force.

## Resulting Assignments

The assignment engine first identifies the list of territories for the lead. The rules then determine who gets the deal:

1. This first rule determines if a sales channel value exists. If it does, then all territories identified (by way of territory-based assignment) are assigned.
2. The second rule says if there is no sales channel assigned, and the deal is under one million dollars, assign the Lead to a Partner and Sales Channel Manager.

3. And the final rule is used when there is no Sales Channel value, and the deal is greater than one million dollars, the lead is assigned to the prime (internal) territories.

## Disposition Logic: How It Is Processed

Assignment Manager, a part of Oracle Fusion Management of Work, uses a two-step process to assign candidates. The first step is the selection of Candidates with the Assignment Manager application. Candidates to be assigned to the work object are determined by territory-based mapping, rule-based assignment, or territory-based mapping with rule-based filtering.

Disposition is the second step. The selected candidates are written to the work object table or the work object child table based on the selected disposition logic. This has several possible outcomes, but it is based on two principal logic features. The first is the delivered Assign Candidate logic. The second is Run Custom Logic, a way for you to define the assignment disposition of the candidate object. For example, you may want to e-mail a specific list of candidates, or write the selected candidates to a specific table. Run Custom Logic can be used in conjunction with the Assign Candidate logic.

## Settings That Affect Disposition

By designating Assign Candidate, Assignment Manager can work with one or multiple candidates that have been returned in the selection process.

- **Single Candidate Returned:** Assignment Manager writes the candidate back to the work object table based on the primary key attribute fields that you must enter for that work object table.
- **Multiple Candidates Returned:** A work object child table is designated to record these candidates. Then you indicate at least one and up to three attributes that serve as the primary key fields. There are two choices for how to write the resulting candidates, Replace Candidates and Keep Manual Candidates.
  - **Replace Candidates:** When the Assign Candidates logic is run, the results are compared to any results already in the work object child table. If Replace Candidates is checked, any existing candidates are removed and replaced with the new results. No manually entered candidates will be affected.
  - **Keep Manual Candidates:** Some applications using Assignment Manager allow manual entry of candidates. When a candidate is entered manually, there is an attribute that indicates manual entry that is set to Y or Yes. When Keep Manual Candidates is checked and the manual attribute indicated, Assign Candidates logic will disregard these candidates when writing to the work object child table.

Selecting Run Custom Logic allows you to develop your own code to perform specific actions on or with the candidates that are returned from the selection process. When this option is chosen, after the selection process, Assignment Manager will use a callback function in the application module which will call

your custom logic code and pass on the information received from the selection process.

## How Disposition Logic Is Processed

Assignment manager selects the candidates and then passes in the results from the selection phase to either the assign candidate or custom logic or both.

If you check both Run Customer Logic and Assign Candidates on the user interface, the assignment engine will invoke the Assign Candidates logic first and then execute the Custom logic.

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### Note

If you are using credit allocation templates in Oracle Fusion Opportunity Management, you may wish to leave both Run Custom Logic and Assign Candidate unchecked. Opportunity Management uses Assignment Manager to find matching credit allocation templates. In this process, Assignment Manager passes the template IDs back to Opportunity Management which does the assignment. No custom logic is involved and Assignment Manager does not perform the assignment.

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## FAQs for Configure Opportunity Assignment

### What's Assignment Manager?

The Assignment Manager module of Oracle Fusion Work Management assigns sales team members to opportunities based on certain parameters. Refer to the topic, Opportunity Team Assignment: Explained, for information on the different ways you can invoke the assignment engine.

### What's the difference between rule-based and territory-based assignment?

Territory-based assignment is the primary means of assignment for CRM objects. For territory-based assignment, you create work object to candidate object mapping sets during assignment object creation that are used to make candidate assignments.

Rule-based assignment is used for identifying supplemental resources or filtering the matching territories. Rules can also be used for scoring work objects and also for classification. For rule-based assignment, you use the rules editor to create expression-based rules that the assignment engine uses to make candidate assignments.

Territory plays a fundamental role in Fusion CRM. Using attributes it defines how a company is going to market. That is, how is that company deciding to deploy its Sales Resources to sell to Customers? Every Sales Account, Lead, and Opportunity has a territory or territories assigned. In many cases, customers will implement Territories down to the level of individual Sales Representative

(that is, each Sales Representative will have his or her own Territory) in order to enable these capabilities at the granularity that they want, as well as the Sales Planning/Territory Alignment capabilities at the granularity that they want.

In a territory-based assignment scenario, you typically create a mapping set between a work object and a candidate object to make the appropriate candidate assignment. This mapping set can consist of 1 or more mappings between the work object attributes and the candidate object attributes.

A simple example territory-based assignment setup is a single mapping set between the opportunity revenue line work object and the candidate object of territory. This mapping set contains a single mapping which maps the attribute of location on the opportunity (the parent of the revenue line) to the geography attribute on the territory. Any territories where the geography value matches the location of the parent opportunity are matched and assigned to that opportunity revenue line. Another example would be two mapping sets defined between the lead work object and the territory candidate object. The first mapping set determines the assignment of territories to each lead based on a mapping between the industry of the customer on the lead and the territory industry dimension. This would be a literal mapping that filters the territories to those that have a status of finalized and a literal mapping that filters the territories to those that have a sales centric coverage model. The second mapping set is conditional and determines the assignment of partner channel manager territories. This mapping set consists of a mapping between the geography of the primary partner on the lead and the territory geography dimension. This would be a literal mapping that filters the territories to those that have a status of finalized and a literal mapping that filters the territories to those that have a partner centric coverage model.

In a rule-based assignment scenario, you create rules with conditions that need to be met in order to make the appropriate candidate assignments. For example, a rule is created with the condition that the candidate object (resource) has a product skill rating that is greater than or equal to intermediate in order to be matched to the work object and be assigned.

The following chart compares the features and pros and cons of territory-based assignment and rule-based assignment:

Territory-Based Assignment	Rules-Based Assignment
<p>Pros:</p> <ul style="list-style-type: none"> <li>• User-friendly territory management</li> <li>• Minimal assignment configuration</li> <li>• Support for hierarchies</li> <li>• Preview of assignment</li> <li>• Reports to identify gaps and overlaps</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>• Additional administration required even with simple territory models</li> <li>• Single territory structure for CRM</li> </ul>	<p>Pros:</p> <ul style="list-style-type: none"> <li>• Familiar concept with expression-based rules</li> <li>• Any attribute can drive an assignment</li> <li>• Easy to define and maintain a small number of straightforward rules</li> <li>• Scoring and classification</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>• Unable to navigate hierarchies</li> <li>• Requires intensive effort to manage complex or large numbers of rule</li> </ul>

## What's the difference between literal, dimension, and attribute mapping?

**Dimension Mapping:** Dimension mapping should be used when the work object and candidate object attributes in the comparison are dimension attributes, such as Geography, Product, or Account. When creating the mapping, use the **Function Code** field to specify a unique identifier for the dimension. This identifier is passed to the translation function, in case the same function is used for multiple dimensions.

**Attribute Mapping:** This mapping enables you to compare and match attribute values between a work object attribute and a candidate object attribute. When the value of the candidate object attribute matches the work object attribute the candidate is selected. Attribute mappings should be used when the work object and candidate object attributes in the comparison are non-dimensional attributes. For example, consider a lead work object with a program ID attribute and the territory object with program ID attribute. The selection criterion is:  
`select Sales Lead Territories where Sales Lead Territory.ProgramID equals Sales Lead.LeadProgramID`  
The assignment engine will use this mapping data to construct a query on the candidate object that is equivalent to the selection criteria. When creating the mapping, the Function Service and Function Code are only needed if a translations function is used. The function code field is used to specify a unique identifier for the attribute, and this identifier is passed to the translation function.

**Literal Mapping:** Literal Mapping is used almost exclusively to filter the candidate objects. This form of mapping enables the comparison of candidate attributes against a specific value chosen by the user. The assignment engine will compare the mapped candidate object attribute against the specified literal value. For example, select the Territory Candidate object that has the attribute TerrStatusCode that equals the value `FINALIZED`.

---

### Note

For Literal Mappings ensure that the value entered corresponds to the Lookup Type Value code, not the meaning.

---

## What happens if I mark an assignment object or one of its attributes as inactive?

When the assignment object inactive box is checked the selected work or candidate assignment object is not available for assignment processing. When

the assignment attribute inactive box is checked the selected work or candidate object attribute is not available for assignment processing.

---

**Note**

The object or attribute cannot be set to inactive if there is a mapping set, mapping, or rule defined using the object or attribute.

---

### **How can I identify a Classification candidate object?**

Enter the word Classification in the Application Module field. This will create a candidate object that you can use when setting up classification-type rules; for example, rules that qualify or rank leads.

### **How can I exclude a candidate from an assignment?**

You can exclude candidates during the assignment process by navigating to the Candidates tab. Scrolling down the section Exclude Candidates. Enter the View Object that controls which candidates are to be excluded and enter the selection criteria for up to three key fields.

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**Note**

The application using Assignment Manager needs to support a View Object that controls which candidates are to be excluded in order to use this feature.

---

### **How can I manually add territories to an opportunity?**

Administrators can manually assign territories to one or more additional salespeople on a revenue line in order to allow another salesperson working the deal to forecast it in his territory. Manual assignment may be required, for example, to even out a temporary unbalanced load between salespeople reporting to a manager, or even to accommodate a salesperson on extended vacation.

Manual assignment of territories can be performed in the assign sales credit screens or in the details of the revenue line by using the territory picker.

By default, only users with the Sales Administrator job role can perform manual territory assignment on opportunities.

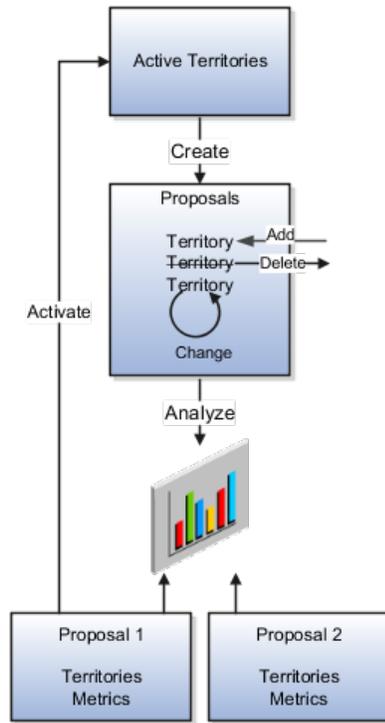
## **Manage Opportunity Management Batch Processes**

### **Territory Components: How They Work Together**

Territories are used to define the jurisdiction of responsibility of a salesperson over a set of sales accounts. Sales managers use territory proposals to change

territory definitions. Managers can create more than one territory proposal and use metrics and graphs to compare and analyze their proposed territories for fairness, effectiveness, and alignment with current sales goals. Managers then activate the best territory proposals.

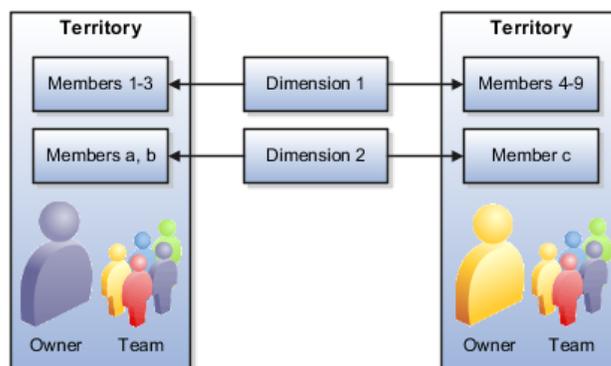
This figure shows the use of territory proposals to add, change, and delete territories. After analysis, managers activate final territory proposals.



## Territories

A territory, whether active or part of a territory proposal, includes several elements. One or more dimensions, such as geography, define the boundaries of a territory according to selected dimension members, such as Europe or Asia. Every territory is assigned an owner and can have additional territory team members.

This figure shows two territories defined using the same two dimensions but different dimension members. Each territory has an owner and a sales team.



# Use Sales Coach for Guided Selling

## Sales Coach: Explained

Sales Coach is both a teaching tool and a method to push best practice information to you in order to improve sales.

The following aspects of Sales Coach can assist you in your efforts to bring opportunities to a successful close:

- Process steps
- Recommended documents
- Task templates
- Assessment templates
- Required fields

### Process Steps

Process steps guide you through the best-practice processes that you should follow during a particular sales stage. For example, in the Discovery sales stage, your company may recommend that you interview the potential customer, develop a product list, and make a go or no-go decision on progressing an opportunity to the next sales stage.

### Recommended Documents

Recommended documents, such as customer letter templates, relevant Web sites, and training materials, provide coaching strategies and best-practice information, among other uses.

### Task Templates

Task templates provide a list of required or recommended tasks relevant to a particular sales stage. Recommended task templates are optional. Autogenerated task templates are automatically applied to your list of tasks for a particular sales stage, when the opportunity moves to that stage.

### Assessment Templates

Assessment templates enable the analysis and scoring of an opportunity object, such as a product, a competitor, or an opportunity overall. After selecting an assessment type, you enter a series of responses to achieve a weighted score. This score then helps determine the success rate of the opportunity.

Assessment templates, like task templates, can be applied automatically to an opportunity (if they are marked as mandatory for a sales stage), or they can be applied manually.

### Required Fields

For each sales stage, the administrator can specify the fields in the opportunity header that you must enter before the opportunity can progress to the next sales stage.

## FAQs for Sales Coach

### **What's a process step?**

Part of the Sales Coach feature and set up by the administrator, process steps are recommended procedures for sales representatives to follow during a particular sales stage to most efficiently and effectively progress the deal along to a successful outcome.

### **How can process steps assist the sales cycle?**

Process steps guide you through the best-practice processes that you should follow during a particular sales stage. For example, in the Discovery sales stage, your company may recommend that you interview the potential customer, develop a product list, and make a go or no-go decision on progressing the opportunity to the next sales stage.

### **What are task templates?**

Task templates provide a list of required or recommended tasks relevant to the particular sales stage.

### **What are assessment templates?**

Assessment templates enable you to evaluate the health of a particular business object, such as an opportunity product, an opportunity competitor, or an opportunity overall. An assessment template consists of a set of weighted questions and possible responses that are scored. After selecting the appropriate assessment type, you enter responses for all the questions in an assessment template, and achieve a score once the assessment is submitted. This score is used to evaluate the health of the business object. For example, the score could help determine the success rate of the parent opportunity.

### **What are recommended documents?**

Recommended documents give you resources that can provide coaching strategies and best practice information, among other uses. These documents can include such items as customer letter templates, relevant Web sites, and training materials.

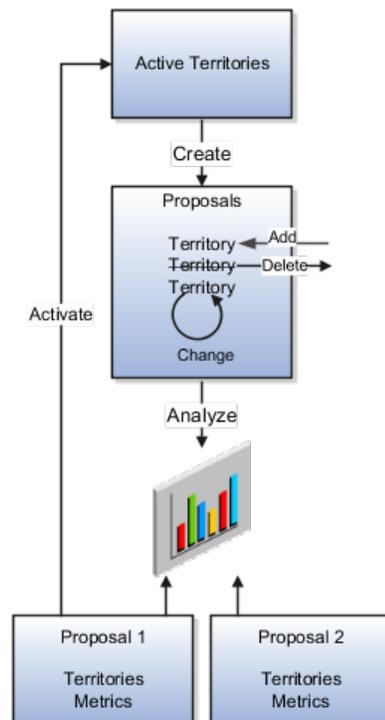


## Define Territory Management Configuration

### Territory Components: How They Work Together

Territories are used to define the jurisdiction of responsibility of a salesperson over a set of sales accounts. Sales managers use territory proposals to change territory definitions. Managers can create more than one territory proposal and use metrics and graphs to compare and analyze their proposed territories for fairness, effectiveness, and alignment with current sales goals. Managers then activate the best territory proposals.

This figure shows the use of territory proposals to add, change, and delete territories. After analysis, managers activate final territory proposals.

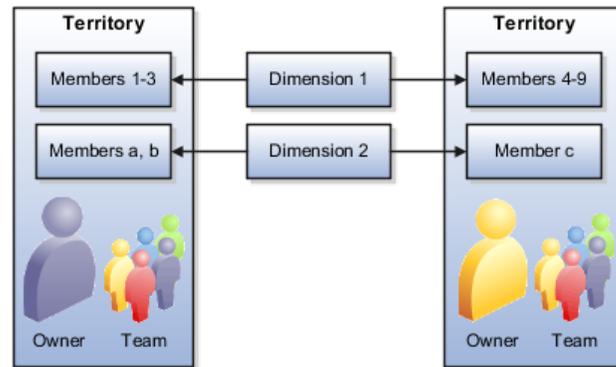


#### Territories

A territory, whether active or part of a territory proposal, includes several elements. One or more dimensions, such as geography, define the boundaries

of a territory according to selected dimension members, such as Europe or Asia. Every territory is assigned an owner and can have additional territory team members.

This figure shows two territories defined using the same two dimensions but different dimension members. Each territory has an owner and a sales team.



## Mapping Sets: Explained

Mapping sets enable the grouping of mappings so that you can create more than one mapping for each combination of work object and candidate object. The mapping set concept is used only with territory-based assignment and territory-based assignment with rule filtering. When managing assignment objects, the user can define one or more mapping sets, each of which is comprised of multiple mappings, for each combination of work object and candidate object.

A sequence can be entered for each mapping set which is used to determine the order in which these mapping sets will be used in the territory-based assignment processing.

Additionally, a conditional attribute can be defined which controls whether the mapping set is used or not used during assignment processing. For example, the partner channel manager territory assignment mapping set conditional attribute is set to the value RevenuePartnerId. During the assignment processing of a revenue line, if the Revenue PartnerId attribute for that revenue line contains a value, then this mapping set will be used in territory matching processing.

## Multistep assignment processing: Explained

Multistep assignment processing allows carrying out multiple steps of matching territories. This multistep processing allows for matching territories that use attributes, such as geography and organization type, of the sales account in one step, and then matching territories using attributes, such as the geography of the partner. Assignment Manager determines if multiple steps are performed based on the existence of more than one active mapping set. Each mapping set contains multiple mappings that determine the information on the work object, such as lead or opportunity, and information on the territory that is used in territory-based assignment processing.

## Example of Opportunity Assignment

The following example of opportunity assignment explains multistep assignment processing. In this example a Revenue work object has two mapping sets, each with different mappings defined. When territory-based assignment is triggered for an opportunity, it performs the following steps:

1. In the first step, identification of prime, overlay, or channel manager territories is based on sales account attributes.
2. In a second step, channel manager territories that are based on partner attributes are identified and driven from a second set of mappings between the revenue or partner work object and the territory candidate object attributes.

The performance of both steps 1 and 2 depends on the presence of a partner on the revenue line, which is controlled by setting the conditional attribute on the mapping set. The RevenuePartnerId attribute is selected on the second mapping set, and only when that attribute contains a value is the mapping set (step 2 of assignment) used.

### Assign Territory Matches

The results of the territory matches from steps 1 and 2 are merged and the matches passed to Opportunity Management for assignment. The merging of the results is optional and is performed based on an indicator setting in the related Candidates section of the assignment configuration.

## Define Territory Management Dimensions

### Territory Dimensions: Explained

Dimensions are attributes that define jurisdictional boundaries of territories. For example, the geography dimension can be used to define territories by country or postal code. Territory dimensions are used to assign sales accounts, partners, leads, and opportunities to the correct territories.

Each territory dimension is matched to an attribute of the object being assigned. Product and Sales Channel dimensions are matched to lead and opportunity attributes directly. The rest of the dimensions are matched to sales account attributes either when assigning sales accounts to territories, or when assigning leads and opportunities to territories, in which case the sales account for the transaction is used. All dimension values combine to define the territory boundaries. For example, if Geography = United States and Product = Green Servers, then the territory boundaries are United States AND Green Servers.

The dimensions available for defining territories are:

- Account
- Account Type
  - Named or Not Named
- Customer Size

From the Organization Size lookup

- Geography
- Industry
- Organization Type

The organization type hierarchy is from the customer classification module.

- Partner
- Product

A hierarchy from the Sales Catalog. Used to assign leads and opportunities, but not accounts.

- Sales Channel

Used to assign leads and opportunities, but not accounts.

- Auxiliary 1, 2, 3

Your administrator enables the dimensions your organization uses for defining territories. The administrator also selects the dimension members that appear in the selection list when defining territory dimensions. All invisible dimension members appear in an Others category in the selection list. An Unspecified dimension member captures objects with insufficient matching values.

Dimension members are populated through synchronization with the source data. For example, products synchronize from the product catalog. Changes to the source data can impact the assignment of sales accounts, leads, and opportunities after the changes are synchronized with territory dimension members. For example, a sales account that was designated as not named is changed to named account, or a product line is removed from the sales catalog. Therefore, it is a good practice to run full reassignment processes for leads, opportunities, and accounts after synchronizing dimension changes.

## **Account**

Sales accounts and their hierarchies are maintained in the Oracle Fusion Customer Center application.

Sales accounts are Parties with the usage Sales Account and a sales account profile containing sales information specific to the party. When a party has one sell-to address, it ceases to be a sales prospect and becomes a new sales account. When the party purchases something, it changes from a new to an existing sales account. When defining a territory, you can select an individual account to include in the territory despite the fact that it does not meet the boundaries set in the regular coverage. You also have the option to select the individual account to exclude it from the territory despite the fact that it does meet the dimension selections in the regular coverage for that territory. The selection for inclusion or exclusion does not contain the hierarchy for the sales account.

The account must be designated as Named in Customer Center before it can be selected as a named account using the Account dimension in the regular coverage for the territory definition. When defining territories, you can select named accounts that fall within the other dimension definitions for the hierarchy.

You can also select named accounts that do not fall within the other dimension definitions provided the accounts are higher in the customer hierarchy above a selected named account that does fall within the other dimension definitions.

The administrator can enable the Account dimension using the following choices:

- Enable for both named accounts in regular coverages and selected sales account inclusions and exclusions.
- Enable only for selecting individual sales accounts for inclusions and exclusions. Named accounts are not available in the regular coverage.
- Disable the Account dimension so neither named accounts are available in regular coverages nor sales accounts available for inclusions or exclusions.

## Geography

Geography is defined as a physical space, with boundaries, on the surface of the earth.

Geography Type is a divisional grouping of geographies, and can be either one of two types:

- **Master:** Any record or object in Fusion that has a street address, in any country in the world, uses Master Reference Geography Types to define that address. Master reference geography data is imported into the application, not set up manually. It can be imported into the application using the Manage File Import Activities setup task in Setup and Maintenance.
- **Zones:** A convenient, customized grouping of geographies. For example, you can group several states into a zone called Northwest. Zones have to be defined and created manually, so they are optional. No other Fusion application uses them besides Territory Management, and you only want to use zones to define your sales territories if the boundaries of your sales territories do not strictly follow the Master Geography structure (that is, if they are regional and go outside the official country specific structure, for example are different than state-county-city-ZIP code in the case of the United States).

The geography dimension value in territories is derived from sell-to addresses of sales accounts. To use geography dimensions in territories, ensure that the geography elements in addresses, such as state, city, and postal code, are validated. You can do so by enabling geography validation for each country using the Manage Geographies task. While doing so, ensure that at least one level in the geography hierarchy is enabled for geography validation. It is recommended that you enable geography validation for all geography levels that you intend to use for territory definition for each country. You can enable a list of values containing specific geography elements. This will help users search and select appropriate geography values during addresses entry and eliminate all possibilities of wrong address entry. You can also set geography validation control to Error in the Manage Geography Validation page. This ensures that users can only use valid geography elements in addresses. If you have already created addresses before setting up geography validation for a country, you must execute the Run Maintain Geography Name Referencing task for that country after enabling geography validation to ensure that all your geography elements are validated.

Since zones are user defined, they are subject to interpretation. In order to use them, you need company-wide consensus on their definition. This means across all business units, and all lines of business that sell to the same account.

Zones together with master geographies are organized in a hierarchy. Setting up the territory hierarchy using Manage Territory Geographies is a prerequisite to enabling the geography dimension, whether or not you choose to include zones in the hierarchy.

## **Industry**

The industry hierarchy is from the customer classification module.

The profile option Industry Classification Category must be set to the classification category that you want to use as the basis for the industry dimension before you can enable the dimension. The available selections include only classification categories belonging to the Industrial Categories grouping.

## **Partner**

A partner is an organization party with a partner profile associated and an assigned Partner usage. Partners are defined in the Partner Center. You can select individual partners to include in the definition of a partner centric territory. You can also select individual partners to exclude from the partner centric territory coverage.

The administrator can enable the Partner dimension for manual inclusions and exclusions. The Partner dimension is not available for regular coverages.

## **Sales Channel**

The sales channel dimension supports indirect sales through channel partners. You can create partner specific territories, structured by the sales channel dimension, in addition to the other available dimensions. The available sales channels are Direct, Indirect, and Partner. The sales channel dimension applies to leads and opportunities, but not to sales accounts.

## **Auxiliary 1, 2, 3**

You can define up to three auxiliary dimensions based on the customer classification model. Define classification categories first and associate them to the Customer Categories grouping.

The following steps must be done before you can enable auxiliary dimensions:

1. Use the Manage Classification Categories task to create a new classification category. You can allow parent code assignment. If you allow multiple class code assignments, then the classification that is designated as Primary in the customer record is the one that is matched to assign the customer to a territory.
2. Add classification codes for the new category. You can form a hierarchy with the codes or not.
3. Use the Manage Classification Groups task and search for the CUSTOMER\_GROUP category group code. Edit the group and add your new classification category to the group.
4. Using the setup task Define Classification Category for Auxiliary Dimension 1 (or 2 or 3), you change the value of one of the profile

options to point to the classification category you just created. Then this classification category becomes the source for dimension members for the auxiliary dimension.

## Dimension Parameters: Explained

## Dimension Parameters: Explained

Use parameters to refine the definition of each dimension so it best fits business requirements.

Three dimensions use parameters:

- Industry
- Time
- Product

### Industry

Use the parameter to set the number of levels in the industry hierarchy that display in the dimension member selection screen.

### Time

Set the start of the time period used in calculating metrics using the Calendar Start parameter. Set the number of years prior to today's date when the calendar starts for metrics.

### Product

Use the parameter to set the number of levels in the product hierarchy that display in the dimension member selection screen.

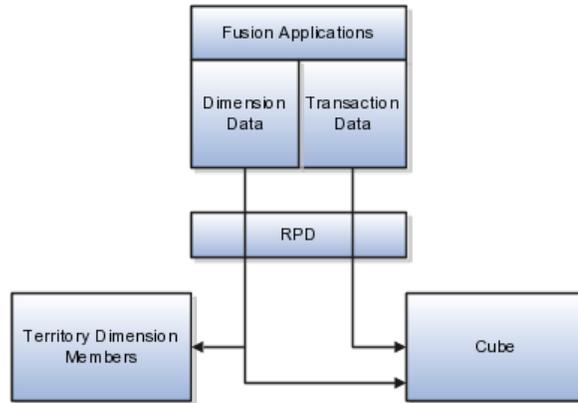
## Populating Dimension Members: Explained

Dimension members are populated and synchronized in Oracle Business Intelligence Suite Enterprise Edition Plus either via the data warehouse, or without the use of data warehouse. Administrators must repopulate dimension members when source data changes, such as changes in the product catalog and the addition of new customers.

### Non-Data Warehouse Option

When you do not use data warehouse, dimension and transaction data are populated directly from Fusion Applications into territory dimension members and the Oracle Essbase cube. The structure of the cube reflects the enabled dimensions in Territory Management and their members. The cube provides metrics information for defined territories.

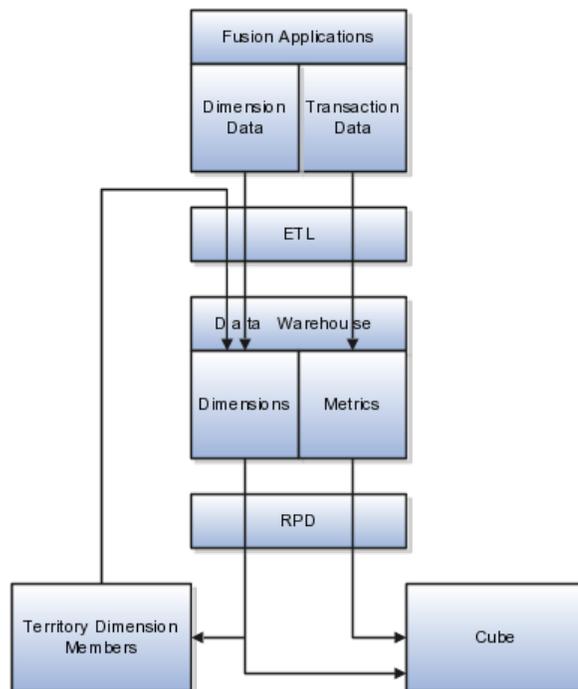
This figure shows the population of the dimension members data and the Oracle Essbase cube using the Repository Project Design (RPD) view from Business Intelligence.



### Data Warehouse Option

(On-Premise implementations only.) In the Data Warehouse option, the data warehouse Extract-Transform-Load (ETL) logic extracts transaction and dimension data from Oracle Fusion Applications into the data warehouse first. The data warehouse stores dimensions and metrics data. Metrics data is based on transaction information. Territory Management contains only a subset of the dimensions stored in data warehouse.

This figure shows the use of ETL to load data from Fusion Applications to the data warehouse, and RPD to provide data to the cube and to Territory Management. ETL also loads the settings for visible and invisible dimension members from Territory Management to the data warehouse.



Use ETL to load data to the data warehouse when:

- There are changes in the dimension members sources (Fusion Application), so that the new structure of the dimensions is reflected in the data warehouse and consequently in Territory Management.

- After changing visibility settings for dimension members.

## Cube

Territory Management generates the cube based on the enabled dimensions and their members. Territory Management loads the cube with dimension members and metrics directly from the data warehouse, in the case of the data warehouse option, or from Fusion Applications, in the case of the non-data warehouse option. The cube provides metrics information for defined territories.

## Sequence

There are several aspects to enabling and populating dimension members, including setting profile options for certain dimensions.

Following is the sequence for populating dimensions for use in defining territories:

1. Set up source data for the dimensions you plan to use. This includes:
  - Master geography and territory geography zone hierarchies
  - Customers with a sell-to address and Named Sales Account selected
  - Product catalog
  - Customer sizes lookup
  - Classification codes for the Organization Type classification category
  - Industry classification category and codes
  - Customer classification categories and codes for auxiliary dimensions
2. Change profile options for industry classification category or the classification category for auxiliary dimensions 1, 2, or 3.
3. If you are using data warehouse, then run ETL to populate the data warehouse with the dimension members and transactional data.
4. In Territory Management, identify the dimension members to be made visible in selection lists for defining territories. Refresh the members before making visibility selections.
5. If you are using data warehouse, then run ETL to populate the data warehouse with visibility settings.
6. Use the stage environment in Territory Management to enable dimensions. Execute the Stage action which synchronizes the Territory Management stage environment with the data source. You can start defining territories using newly enabled and populated dimensions after you promote the stage environment to production.

## Using Territory Dimensions: Examples

The sales administrator enables only the dimensions the organization requires for defining territories. The following examples illustrate the use of different

dimensions to assign sales accounts, leads, and opportunities to the correct salespeople using defined territories.

### **Geography**

For most of your sales activities, you want to assign salespeople by city and postal code.

### **Account**

You have a few key accounts that should belong to top salespeople. Use the account dimension to create territories for individual sales accounts.

### **Account Type**

You want to assign major sales accounts to Named accounts territories. A named account territory can have child territories identified by other criteria, such as geography. You also have territories with the account type of Not Named that include no major named sales accounts in the hierarchy.

### **Customer Size**

One product line is suitable only for organizations above a certain size. Use the customer size dimension to target only the larger customers for the product line.

### **Industry**

You sell one type of service to telecommunications companies, another service to utilities, and a third service for insurance companies. You can create territories for each using the industry dimension.

### **Product**

You sell a product line that requires salespeople to have a high degree of technical knowledge. Create separate territories for this product line.

### **Sales Channel**

You delegate sales accounts that are small to partner sales organizations by geography.

## **FAQs for Manage Territory Management Synchronization**

### **What's the difference between staging an environment and automatically staging and promoting the environment?**

The Stage Only process runs checks for errors, and the administrator can then analyze the environment and make any corrections before promoting it to an active environment, or deleting the stage environment.

The stage process synchronizes the dimensions and metrics with the source and checks for any errors that occur if the current territory definitions were based

on the stage data. If a change in enabled dimensions causes a currently active territory to become invalid, then the error must be corrected either by changing the enable selection or changing the territory definition before promoting the stage environment to production.

In a stage environment, the administrator changes dimension parameters and enables or disables dimensions and metrics , without affecting current territory management activities. The production environment provides enabled dimensions and metrics for ongoing territory definition activities.

Automatically staging and promoting the environment synchronizes the stage environment with the data source, runs validation checks, and if no errors, promotes (moves) the stage environment data to production.



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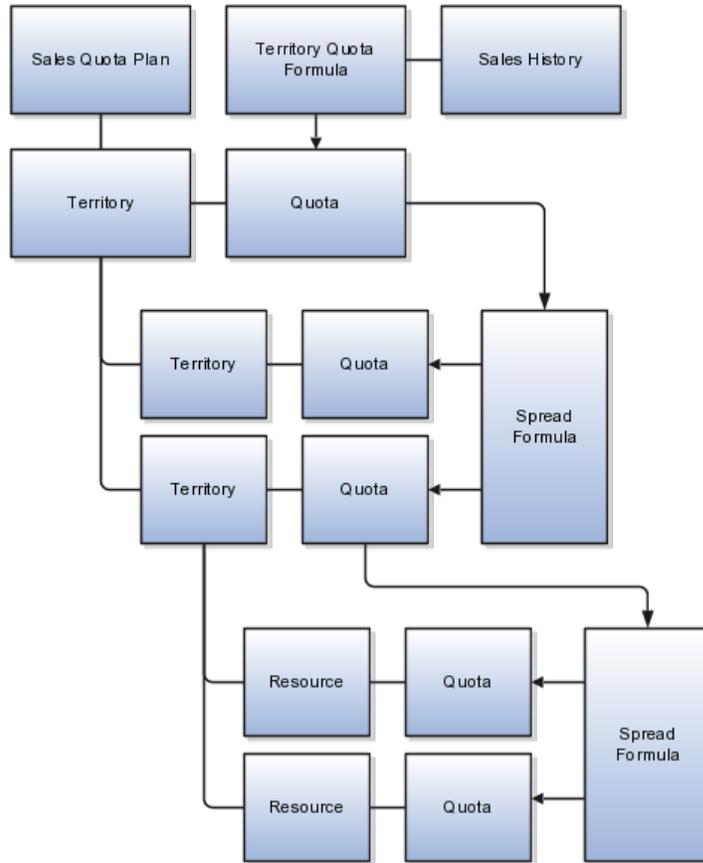
## Define Sales Quotas

### Define Sales Quotas

#### Sales Quota Plan Components: How They Work Together

Quotas are a reflection of sales targets set for an individual in a sales organization. After a corporate goal is established, managers distribute quotas down through the sales territory hierarchy until all territories and their respective owners have quotas. Quota predictions based on historical sales information and metrics are provided as a comparison with quotas being set. Managers use one sales quota plan for the fiscal year.

In this figure, a sales quota plan contains several territories, each assigned a quota. Territory quota formulas compute predicted quotas based on historical sales information and metrics such as forecasts and market potential. The predicted quotas appear as default territory quota amounts. Managers assign territories to individual salespeople and sales managers. Applying spread formulas quickly allocates quotas among territories or resources.



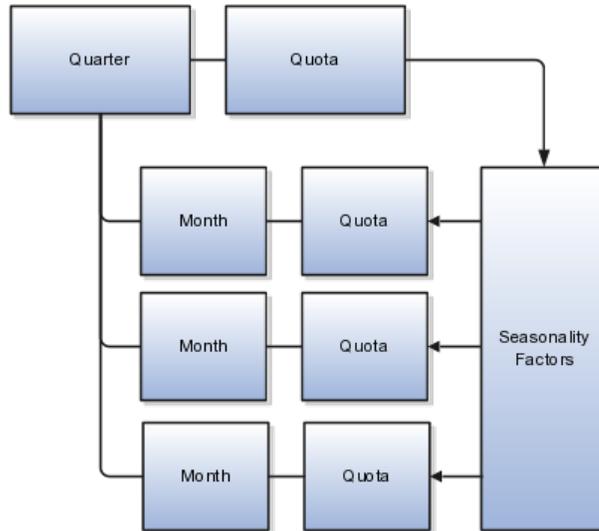
## Sales Quota Plan

A sales quota plan covers a period of one year. The administrator selects territories to include in the quota setting process, and can optionally add territory proposals to allow the setting of quotas for proposed territories.

For the sales quota plan options, the administrator selects an adjustment threshold, a territory quota formula, and a seasonality factor group to apply to all territories. Territory options override sales quota plan options. For example, the territory quota formulas and seasonality factor groups selected for individual territories override the formulas selected for all territories.

The administrator can also set a threshold percentage for adjustment amounts that managers often add to quotas.

In this figure, the assigned quota gets distributed over each month through seasonality factors that raise or lower quota amounts according to seasonal fluctuations.



### Territory Proposals

You can associate territory proposals to your sales quota plan. When sales administrators or sales managers create new proposed territories, such as for a territory realignment, they can enable the setting of quotas for the proposed territories by selecting Eligible for Quota. If you then associate the proposals to your quota plan, you see the proposed territories within the current active territory hierarchy, and salespeople will be able to assign quotas to the proposed territories.

## Territory Quota Formulas: Explained

Territory quota formulas calculate territory quota based on historical sales information and metrics such as forecasts and market potential. The calculated quotas appear as default territory quota amounts in the sales quota plan.

The formulas execute a Multidimensional Expressions (MDX) query on the territories Oracle Essbase hypercube.

Administrators can change parameters for formulas and set each formula to active or inactive.

### Predefined Formulas

Following are explanations for a few of the predefined territory quota formulas.

- Scale a measure from a past period by a percentage

Total the amounts for a selected measure for the past selected year. Calculate the stated percentage of the total and add it to the total.

For example, 110 percent of closed bookings for fiscal year 2009.

- Percentage change in a measure value over 2 consecutive periods

Subtract the total amounts for a selected measure for one year from the total amounts for the subsequent year. Divide the difference by the total of the first year to determine the percentage of change. Calculate the percentage of the total value of the second year and add the result to the year's total.

For example, closed bookings for 2009 minus closed bookings for 2008 divided by 2008 total gives the rate of change as 8 percent. Calculated quotas are 108 percent of the 2009 closed bookings.

- Percentage change in a measure value over 2 named time periods (current and past)

Subtract the total amounts for a selected measure for a selected year from the total amounts for the current year. Divide the difference by the total of the earlier year to determine the percentage of change. Calculate the percentage of the total value of the current year and add the result to the year's total.

For example, closed bookings for 2010 minus closed bookings for 2007 divided by 2007 total gives the rate of change as 7 percent. Calculated quotas are 107 percent of the 2007 closed bookings.

### Creating Formulas

Use the Essbase MDX Script Editor to create your own territory quota formulas.

For more information on MDX functions, see Oracle Essbase Technical Reference.

For more information on MDX queries, see Oracle Essbase Database Administrator's Guide.

## Managing Sales Quota Plans: Worked Example

This example shows how to create a new sales quota plan for the coming year. You are the sales administrator and it is a month before the start of the fiscal year. You start the sales quota planning process by creating a sales quota plan for the year.

Create a new spread formula that sales managers can use to spread a quota amount among child territories. Create a seasonality factor group that spreads quota amounts across time by applying ratios to approximate expected seasonal fluctuations. Then create a sales quota plan for the new year, add the top level in the sales territory hierarchy to the plan, which includes all territories, and assign the spread formula and seasonality factor group to the plan. For the North America Sales territory, select a territory quota formula and other options.

### Creating a Spread Formula

This spread formula calculates the ratio of closed bookings among the child territories, and applies the ratios to the quota amount a sales manager wants to spread among the child territories.

1. Go to the **Manage Spread Formulas** page.

2. Click **Create** to add a new spread formula.
3. In the new row, enter information for the fields, as shown in this table:

Field	Value
Name	Closed Bookings
Description	Spreads the source based on the ratio of closed bookings for the selected year.
Metric	Closed Bookings

4. Click **Save**.

### Creating a Seasonality Factor Group

1. Go to the **Manage Seasonality Factor Groups** page and create a new group for summer products for the new year.
2. In the **Seasonality Factors** region, enter the factor percentages for time periods, as shown in this table:

Time Period	Factor Percentage
Quarter 1	15
Quarter 2	40
April	5
May	15
June	20
Quarter 3	35
Quarter 4	10

3. Click **Save**.

### Creating a Quota Plan

1. In the **Manage Sales Quota Plans** page, click **Create**.
2. In the **Sales Quota Plans** table, enter the sales quota plan information, as shown in this table:

Field	Value
Name	Fiscal Year 2011 Sales Plan
Description	Corporate Sales Quota Plan for Fiscal Year 2011
Year	2011
Status	New
Activation Date	Leave Blank
Calculate Default Territory Quota	Select
Track	Deselect

3. In the **Details** region, on the **Options** tab, enter the options as shown in this table:

Field	Value
Adjustment Threshold	10
Territory Quota Formulas	Scale a measure from a past period by x percent. Use 5% and select the prior year, 2010.
Seasonality Factor Group	Summer

4. In the **Proposals** tab, add territory proposals that have activation dates at the start of the fiscal year to your quota plan.

The proposed territories appear in the territory hierarchy. Salespeople can assign quotas to proposed territories you include in the quota plan.

5. In the **Sales Quota Territory Options** table on the **Options** tab, expand the Global territory and enter the options as shown in the table for the North America Sales territory.

Column	Value
Allow Quota Edit	Select
Adjustment Threshold (%)	8
Territory Quota Formulas	x percent growth of a measure over a 3 year simple moving average  <ol style="list-style-type: none"> <li>1. 3 percent</li> <li>2. Prior year 2010</li> <li>3. Closed Detail Revenue by Close Date measure</li> </ol>

6. Click the **Activate** button and set the activation date to the first of next month.
7. Click **Save**.

## FAQs for Define Sales Quotas

### What's a spread formula?

A spread formula calculates the distribution of an amount among selected child territories. For example, a spread formula takes the variance between the parent territory quota and the sum of the quotas for the child territories, and spreads it to the child territories.

The formula calculates the ratios to use for the child territories through the use of the metric defined for the selected spread formula. The formula examines each territory contribution of the metric value for a period, and compares it with

the total value of the same metric for all the territories combined, to determine the percentage to apply to each territory. When a spread formula has no metric selected, then it distributes the amount evenly across the child territories.

### **What's the difference between plan duration and territory proposal duration?**

The default publish by date is determined by the number of days set for the plan duration. Plan duration is added to the activation date of the quota plan to determine the publish by (or due) date by which quotas must be allocated.

If you have no value for the plan duration (null value), then the publish by date is also null. If you enter zero for the plan duration, then the publish by date is the same date as the plan activation date.

The territory proposal duration is added to the territory proposal activation date to determine the publish by (or due) date by which quotas must be revised.

If you have no value for the proposal duration (null value), then the publish by date is also null. If you enter zero for the proposal duration, then the publish by date is the same date as the territory proposal activation date.

### **What happens if I select Calculate Default Territory Quota?**

If Calculate Default Territory Quota is selected, then, when the sales quota plan is activated, the application computes the quota for each of the territories based on the formula and parameters selected to be the default in Manage Territory Quota Formulas.

### **What's a territory proposal conflict?**

You added to your sales quota plan more than one territory proposal that update the same territory. If the proposals make identical changes to the same territory, then there is no conflict. Differences in territory definitions that affect quotas are conflicts and appear if you selected **Show conflicts only**. For example, if one proposal is eligible for quota and the other is not for the same territory, there is a conflict.

### **What's seasonality?**

Annual quotas are distributed to shorter time periods, factoring in seasonal expectations in sales. This expectation is represented as a percentage factor, which reflects the share of quota for the season, or time period.

For example, your sales are typically higher the last quarter of the year and at their lowest the first quarter of the year for several of your product lines. You create the following seasonality factor group, named Retail, to automatically distribute your annual quota and factor in the seasons:

- 10 percent for the first quarter
- 25 percent for the second quarter
- 25 percent for the third quarter
- 40 percent for the fourth quarter

When you assign quota to territories that include these product lines, you apply the Retail seasonality group to correctly distribute the annual quota amounts.

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## Define References and Competitors

### Define References and Competitors

#### Reference Customers: Explained

Reference customers are a valuable asset to any organization. Often, a review process is involved in enrolling satisfied customers into a reference program.

##### Reference Profile

An administrator can create and update a reference profile and store the following details:

- Supported Activity Types

The reference customer profile includes a listing of various reference activity types that the customer will engage in. These activities include prospective customer visits to their site, phone calls, conference participation or subject of a case study. An activity has a threshold number such as a maximum of two site visits during a certain threshold period such as a quarter or year.

- Products

You can select from a list of products purchased by the reference customer or you can search and add products and product groups. These are products that the customer has purchased and has agreed to endorse as part of the reference program.

- Opportunities

Past and present opportunities where this reference is involved are displayed here. You can view details of each opportunity.

- Attachments

You can store case studies and data sheets about this reference and retrieve them easily. Use the content in them while working on a deal.

- Activities

Activities include appointments and tasks involving this reference customer. Appointments and tasks from related opportunities also appear here. You can create new appointments or tasks as well.

- Industries

Displays the industries that the reference customer has a business in.

- Discussions and Wiki Pages

Participate in discussion forums and view wiki pages for a reference customer. These avenues help you understand the customer and equip you with all the knowledge required to win a sales deal.

## Creating Competitor Profiles: Explained

You can store various details regarding the competitors in your sales domain. As a salesperson, you can use these details when you want specific information regarding a competitor during a sales bid.

Some of the details that you can record for a competitor include:

- Stock symbol
- Company URL
- Industry
- Geography
- Threat level

The application records the following details automatically based on your sales:

- Your company's win rate against a competitor
- Revenue that your company has lost to date while competing against a competitor

### Competitor Profile

Apart from the above basic details, the following make up a competitor's profile.

- SWOT Analysis

A method for examining the strength, weakness, opportunity, and threat (SWOT) value for a competitor. This enables you to understand, plan, and craft an effective competitive strategy when facing a competitive threat on a deal.

- Internal Experts

Resources within your organization who hold expertise on the associated competitor. Experts may also be further categorized within their

competitor association definition by associating them with specific product groups. You can leverage the knowledge of the internal experts while working on a deal.

- Product Groups

A listing of all products or product groups the competitor is associated with. In addition, you can also see the customers who are buying the associated products from the competitor.

- Opportunities

A consolidated view of past and current opportunities where the competitor was present. It gives you useful insight to plan the appropriate sales strategies.

- Industries

A listing of all industries where the competitor competes with the deploying organization.

- Geographies

A listing of all geographies where the competitor is at play.

- Attachments

View relevant documents for a competitor. You need access to a variety of competitive collateral providing information on how to position products or solutions against specific competitors. This might include industry and analyst reports about competitors as well as strategy documents for a specific industry that can benefit you in a selling situation.

- Discussions and Wiki

You can also participate in discussion forums and view wiki pages for a competitor. These avenues help you understand the competitor well and equip you with all the knowledge required to win a sales deal.

## FAQs for Define References and Competitors

### What's a reference rank?

Use ranks to classify your reference customers. Ranks 1 to 5 are seeded in the application with Rank 1 being the highest. Search results are sorted in the ascending order of reference ranks. Following is a brief description of what the supplied ranks mean. You can configure them based on your requirements.

- Rank 1

Top-tier corporate reference

- Rank 2

Very strong reference with multiple products and contracts

- Rank 3

Strong regional reference for multiple products

- Rank 4

Limited-use reference based on one product or one person

- Rank 5

Likely to be referenceable upon resolution of customer issues

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## Define Sales Forecasting Configuration

### Define Sales Forecasting Configuration

#### Define Sales Forecasting Configuration: Overview

Salespeople forecast sales by territory as well as by individual salesperson or other resources. The application generates forecasts from opportunities based on configured options. Revenue for opportunities with close dates that fall within a forecast time period is added into the forecast for that time period for the related territory and salespeople for that opportunity. The forecasts are generated as far into the future as the close dates for open opportunities with revenue items.

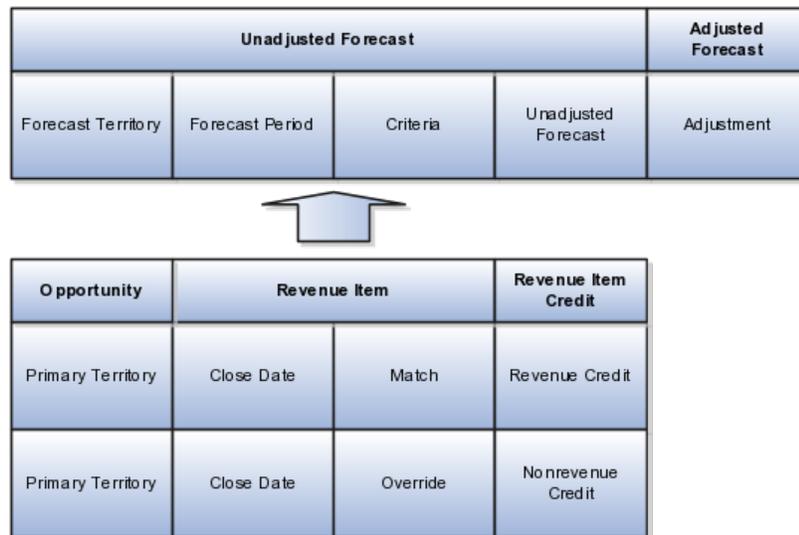
The implementation includes:

1. Configure territories.
2. Configure opportunities.
3. Create at least one opportunity with a revenue line item. The revenue line with the most distant close date is used when selecting forecasting options to determine how far out into the future the forecast schedule will extend.
4. Select forecasting options.
5. Run the Refresh Forecast process. Recommendation is to schedule this process to be run daily after midnight. If opportunities were bulk loaded into the system, it may take some time to refresh the forecast with the new data. This process is run periodically to uptake the latest changes to the territory hierarchy and keep future unfrozen forecasts synchronized with the current opportunity data.
6. Run the Due Date Check process to archive forecasts that have a due date in the past. Ensure the forecasting schedule is generated and has the correct due dates configured before scheduling this process. Recommendation is to schedule this process to be run daily after midnight.
7. Run the Refresh Revenue Metrics process to refresh the pipeline and closed revenue metrics. Scheduling this process to be run daily should be sufficient. Schedule it more frequently if stale metrics are a concern.
8. Configure custom embedded analytics graphs.

## Sales Forecast Components: How They Work Together

A sales forecast for a territory encompasses a time period and sales opportunities that meet defined criteria. Salespeople submit their forecasts to their managers, who make any needed changes and in turn submit the forecasts to their managers.

This figure shows the components for a territory forecast. Revenue items from opportunities form the unadjusted forecast. If the revenue item has multiple sales credits, then the revenue item is visible across multiple forecasts. Salespeople add adjustments to the forecast. Adjustments can be applied at a summary or item level.



### Revenue Items

A revenue item from an opportunity must have a designated close date that falls within the forecast period to be included in the forecast.

The criteria for the revenue item must match the criteria set for the forecast. For example, if the forecast criteria specify a win probability of greater than 75 percent, then a revenue item with a win probability of 80 percent is added to the forecast.

If the ability to override is enabled, then a salesperson can include a revenue item in the forecast even though it does not match the criteria, or exclude a revenue item that matches the criteria.

It is possible for managers to pull in forecast items as adjustments that do not match the close date or criteria and override conditions.

### Unadjusted Forecast

The unadjusted forecast is the total of all revenue items that match the forecast criteria or that are included by overrides. All revenue items must have close dates within the forecast period.

Salespeople can add a positive or negative adjustment on top of the unadjusted forecast to form an adjusted forecast.

Managers and nonrevenue credit recipients can pull in forecast items as adjustments that do not match the close date or criteria and override conditions. Also, managers and nonrevenue credit recipients can drop items as adjustments, regardless of close date or match and override conditions.

## Select Forecasting Options

### Unadjusted Forecast Criteria: Explained

The administrator sets the forecasting criteria. The forecasting criteria is used to determine what revenue items should be automatically included in the sales forecast. The revenue item amounts add up to become the unadjusted forecast amount.

Time period and territory are always evaluated. The forecast must be associated to a relevant territory, and the close date for the revenue item must fall within the forecast period. Items that are closed as lost are always automatically excluded from the forecast. Items that are closed as won are always automatically included in the forecast.

If the item belongs to any other status, then the forecast includes the item if the forecast override is enabled and set to always include in forecast. The forecast excludes the item if the forecast override is enabled and set to never include in forecast. Otherwise, the forecast criteria is evaluated to determine if the item is included in the forecast. For example, include in the forecast all revenue items with a win probability greater than 70 percent.

#### Logic

The logic joins each set criterion with AND. If two criteria are for the same attribute and use equals, then they are joined by OR.

For example, the criteria:

- Status = Open
- Status = WIP
- Product <> CRM
- Product <> ERP
- Win Probability > 20
- Win Probability < 80

Translates logically to:

- (Status = Open OR Status = WIP) AND

- Product <> CRM AND
- Product <> ERP AND
- Win Probability > 20 AND
- Win Probability < 80

## Nonrevenue Forecasting: Explained

Nonrevenue forecasts allow overlay resources who are not the owners of the primary territory to submit a forecast on the same revenue as the primary sales resource. The primary sales resource submits a revenue forecast, and the amount should be counted only once for the revenue forecast. The nonrevenue forecast allows the same revenue to be forecasted a second time.

If there are multiple overlay resources who forecasted the same deal, then the same revenue amount can be added to the nonrevenue forecast many times. A primary resource for one territory can submit a nonrevenue forecast for another territory, so the context of the territory determines if a user is submitting a revenue or nonrevenue forecast.

Nonrevenue forecasts are optional, but if an organization chooses to enable the feature, typically at some level of management some users can submit both revenue and nonrevenue forecasts, and in this case there is often an expected ratio of revenue to nonrevenue dollars. The ratio could be 1 revenue dollar to 1 nonrevenue dollar or 1 revenue dollar to 9 nonrevenue dollars, but any major discrepancy is cause for further analysis. The nonrevenue forecast is based on the nonrevenue credit split within the opportunity, and is closely associated with the nonrevenue quota goals set on the territory.

The administrator must enable nonrevenue forecasting.

### Territories

You can designate territories as not includable in forecasts, or as forecastable for revenue, for nonrevenue, or for both.

An owner of a nonrevenue territory cannot access a revenue forecast, and an owner of a revenue territory cannot access a nonrevenue forecast. However, when managing revenue, it is possible to assign a revenue split to a nonrevenue territory or a nonrevenue split to a revenue territory.

## Territory Freeze Date: Explained

The territory freeze date is the date after which forecasting stops accepting territory hierarchy changes in the forecast period for the scheduled forecast. Any territory hierarchy changes that occur between the territory freeze date and the

forecast due date are ignored in forecasting rollups from subterritories to parent territories. When the territory freeze date is reached, forecasting activities can begin.

The territory hierarchy freezes at 12:00 AM server time on the day of the territory freeze date. Therefore, if you set the territory freeze date today it is immediately effective.

The primary territory for an opportunity can change due to territory realignment. The forecast item reflects this and other changes made to the opportunity both before and after the territory freeze date, up until the forecast item is locked. Forecast items are individually locked when they are adjusted and the entire forecast is locked once it is adjusted at the summary level or submitted.

Following are related aspects of the territory freeze date:

- Freeze date changes
- Forecast submissions
- Territory changes

### **Freeze Date Changes**

If the forecast is frozen and the administrator extends the freeze date, then all submitted forecasts are unsubmitted and all the forecasts are no longer frozen.

### **Forecast Submissions**

Salespeople can submit their forecasts only after the territory freeze date and before the forecast due date.

### **Territory Changes**

Territory hierarchy changes are not reflected in the forecast hierarchy for frozen forecasts. Opportunity changes are not reflected in locked forecast items.

For forecast items that are not locked, the following changes occur after the freeze date:

- When revenues move to newly added territories after the forecast is frozen, the forecast items do not move to the new territories because the new territories are not added to the frozen forecast hierarchy.
- Forecast items are removed from deleted territories, provided both the source and destination territory forecasts are not submitted.
- When revenues move between territories, the forecast items do not move if either the source or destination territories are submitted.
- If revenues move between existing active territories due to territory definition changes, then forecast items also move.
- If revenues move between existing active territories due to revenue attribute changes, then forecast items also move.

# Forecast Period Parameters: Examples

The sales administrator creates a forecast by setting and submitting period parameters and forecast criteria. The following example illustrates how the period parameter settings affect the forecasting dates.

## Scenario

Your company holds monthly board meetings on 11th of every month where they review, among other things, sales forecasts for the next quarter. In preparation for these board meetings, the sales vice-president asked you to generate a monthly forecast which predicts sales for the next quarter.

On January 1, you configure a recurring monthly forecast with a due date of the 10th of every month by setting the due date to 80 days (21 days of January +28 Days of February +31 days of March) before the first forecast period start date, which is April 1. The end date of the forecast period will be June 30. You set the following forecast period parameters for the monthly board meeting forecast:

- Forecast Period: Quarter
- Frequency: Three
- Adjustment Period: Defaults to Period, which is Month, and cannot be edited
- Due Date: 80 days before the first forecast period start date
- Territory Freeze Date: 5 days before the forecast due date

You will edit the individual due date and freeze date for one quarter where the calculated date does not fall on the desired date.

The following table illustrates the forecast dates that result from these forecast period parameters:

Parameter	Q2 January 10	Q2 February 10	Q2 March 10	Q3 April 10
Due Date	January 10	February 10	March 10	April 10
Territory Freeze Date	January 5	February 5	March 5	April 5
Start Date - End Date	4/1 to 6/30	4/1 to 6/30	4/1 to 6/30	7/1 to 9/30

## Scenario

# FAQs for Forecasting Options

## What's an adjustment period?

The time period for which a salesperson can enter a summary adjustment to the forecast or enter an adjusted forecast is the adjustment period. Time periods are set up in the general ledger calendar for CRM.

### **What's a forecast criteria override?**

If the override is enabled, then salespeople can manually include or exclude a revenue item or forecast item from the sales forecast. Items that fall within criteria set by the administrator (such as win probability greater than 70 percent) are automatically included in the forecast, unless the salesperson employs the override.

### **What's a metric?**

Metrics provide calculated measures based on historical or current transactional data. Salespeople can refer to metrics when making forecasting decisions. Disabling a metric hides the metric from the user interface and speeds up the execution time for certain background processes.

### **What's a pipeline?**

The pipeline metric is the total revenue amount of all revenue line items where the Status category is Open, the primary territory is the target territory, and the close date lies in the forecast period. Unforecasted pipeline is the total revenue amount of all revenue line items without a corresponding forecast item, where the status category is Open, the primary territory is the target territory, and the close date lies in the forecast period.

### **What's closed revenue?**

The closed revenue metric is actual revenue for the target territory that was closed during the forecast period.

### **What's a quota?**

The quota metric is the revenue target associated with the expected performance of a salesperson's territory for a given forecast period.

### **What's an expected forecast?**

The expected forecast metric is the sum of all weighted revenue values for all forecast items in the forecast period. Weighted revenue is the revenue amount multiplied by the probability of the deal closing.

### **What's a best case forecast?**

The best case forecast metric is the sum of all best case revenue values for all forecast items in the forecast period.

### **What's a worst case forecast?**

The worst case forecast metric is the sum of all worst case revenue values for all forecast items in the forecast period.

### **What's an estimated adjustment?**

The estimated adjustment metric is the sum of the difference between estimated revenue and revenue for all transactions in the forecast period. Oracle Fusion Sales Prediction Engine uses statistical analysis to provide the estimated revenue amounts based on historical sales for the product associated to the revenue item.

### **When do I realign territories?**

As a best practice, perform major territory realignments when no forecasting activities are open. Forecasting takes place after the territory freeze date set for the forecast and up to the forecast due date. If all leaf territory forecasts are submitted but the due date has not been reached, it is safe to make changes to territories.

### **How can I display my own graphs in Forecasting?**

Business Intelligence reports provide graphs that you can embed in Forecasting. Add your graph names as lookup meanings in the lookup type Forecast Graph Selector. For the third lookup value use the lookup code ZSF\_GRAPH3 and so on. Add a new profile option for each graph that provides the path to the graph as the value, and give the profile option the same name as the lookup code for the respective lookup value. See the profile option ZSF\_GRAPH1 Sales Forecasting Graph 1 for an example.

## **Run Refresh Forecast Process**

## **Synchronization: Explained**

When a salesperson updates a revenue item in an opportunity, the unsubmitted, unadjusted forecast is automatically updated to reflect the change. This includes

creating new forecast items for transactions that meet forecast criteria, updating existing forecast items, and removing forecast items that no longer meet forecast criteria.

### **Periodic Synchronization**

The periodic process Refresh Forecast updates the forecast hierarchy from the territory hierarchy for unfrozen forecasts nightly or as scheduled. When a salesperson's forecast is past due, the periodic synchronization fully updates the next forecast that is now due.

### **Update from Opportunity**

A salesperson submits a forecast and then changes an opportunity. The salesperson's manager rejects the forecast. By default, the forecast items are not synchronized with the opportunity. If the salesperson enables Refresh from Opportunity at the forecast level, then any changes from the opportunity appear immediately in the forecast.



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## Define Lead Management

### How Lead Components Fit Together

A lead follows a path which ends either with converting the lead to an opportunity, or retiring the lead when no possibility exists of converting the lead to a sales opportunity. The lead lifecycle includes an automated process to first capture the leads, then prioritize the leads for sales engagement through a scoring and ranking process. Leads are then distributed to appropriate sales resources for further lead qualification, follow-up and conversion.

#### Leads Lifecycle

Leads are monitored, reassigned as appropriate and the lead quality is continuously reviewed and adjusted as the lead progresses through its lifecycle. Marketing and Sales departments both share the ownership of leads, where the focus on the leads shifts from Marketing to Sales and back to Marketing based on the lead status. The lead lifecycle is captured in the following topics:

- Lead Generation
- Lead Qualification
- Lead Distribution
- Lead Assessment
- Lead Conversion

#### Lead Generation

Leads are generated and captured from many different sources such as:

- Campaign responses
- Campaign stages handled by telemarketing
- Third-party lead sources
- Sales prediction application through the creation of new leads

Flexible lead import, customer and contact creation, and de-duplication ensure marketing lead generation efforts are optimized. For example, the lead import process checks whether leads represent new or existing customers. For new customers, data needs to be created for the lead. If the lead is an existing customer, part of the lead import process checks to ensure customer and lead information is not duplicated.

#### Lead Qualification

Marketing departments help with the lead qualification process to ensure that only qualified leads are handed over to sales. Leads are typically ranked as Hot, Warm, or Cool. Leads are further qualified by the use of company specific standard questions to score a lead. Lead scores are numeric values typically ranging from 1 to 100, where a high score represents high quality.

It is not good practice to let stale leads build up. Standardized criteria for lead qualification ensure that quality leads reach the salesperson and help maximize the conversion rate from leads to opportunities. For example, your organization has criteria and processes for ensuring that leads are either developed or retired within 30 days. When the lead age is greater than 30 days and the rank is A or B, Marketing reassigns the leads for follow-up by an internal telemarketing group. If the leads cannot be qualified or further developed to revenue opportunities, the rejected leads can be reassigned or can be retired manually.

### **Lead Distribution**

As the qualification of leads progresses into real potential prospects, assignment manager uses expression-based rules to associate one or more internal salespersons with each lead. If the lead is associated with an existing Sales Account, then assignment manager uses territory definitions to associate (typically one) internal territory with each lead. The salesperson newly assigned to the lead may be related to the lead record directly through the lead team or indirectly through a territory associated with the lead. They can view and update those leads to which they are assigned in the lead work area and can claim ownership of the lead by using the Accept Lead action.

Other assigned resources can view and update the lead, but cannot make themselves the owner. As the lead is qualified further, for example, if a sales prospect changes to a sales account by adding an address, assignment manager is automatically invoked during the next automated assignment cycle. Depending on the assignment logic, the lead may be reassigned to a different territory or sales resource. If the assigned salesperson takes no action on a lead for several days, then the lead can be manually reassigned to another salesperson.

### **Lead Assessment**

The salesperson must evaluate the quality of information they have received for the lead. They determine if the details are sufficient to reach out to the customer and assess whether a lead is worth pursuing with the help of preconfigured assessment templates. Assessment templates can further qualify the lead by:

- Reviewing the content shared with the customer during a campaign
- Framing the lead in the context of the campaign
- Ensuring the salesperson understands the information that has already been sent to the customer

Lead Assessment enables leads to be further assessed through predefined questions that help determine the likelihood of the lead being accepted by Sales. In this scenario, a salesperson named Mike begins asking the customer a series of questions created by Marketing and Sales to assess the quality of the lead. As each question is asked, Mike records the answer and the lead assessment tool automatically factors the answer into the assessment score of the lead. At the end of the call, Mike notes that the assessment lead score is high. He requests the lead be assigned to the direct sales team for that customer. If the lead score was low, then Mike could retire the lead, or if the lead needed further qualifying, he could leave it in his list of leads for follow-up at a later date. If the lead is good, but the potential revenue opportunity is less than a predetermined monetary amount, for example, twenty-five thousand dollars, then Mike can convert the lead to an opportunity that he works himself.

### **Lead Conversion**

A lead's life cycle ends either when a lead is converted to a sales opportunity, or when the lead is retired. Conversion to an opportunity stage allows the

salesperson to pursue the account in the sales cycle. After establishing that the lead has potential, the salesperson converts the lead to an opportunity. Contact is established and meetings and presentations are scheduled to move the opportunity along the sales pipeline. To track the progress, contact notes are captured as interactions and associated with the contact and opportunity.

As the lead progresses through its life cycle, decisions to retire the lead are based on the following.

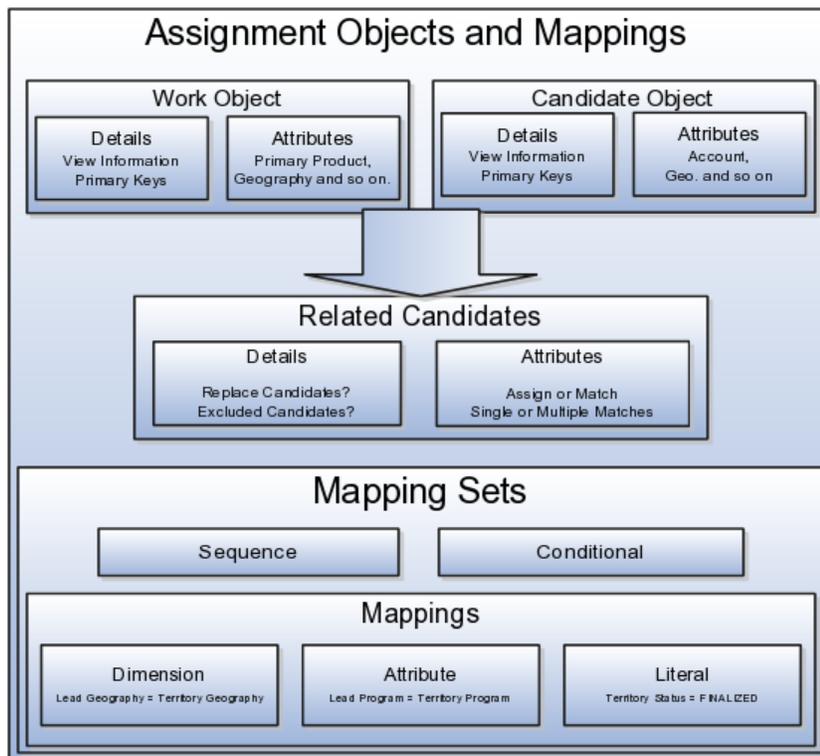
- You cannot verify customer and lead details
- The customer is not interested in pursuing the lead any further

## Configure Assignment Manager for Lead Processing

### Assignment Object Components: How They Work Together

The work object, candidate object, and attributes are components that fit together to create assignment objects that are used in rule-based and territory-based assignment. Work objects are business objects that require assignment, such as leads and opportunities. Candidate objects are business objects, such as resources and territories, that are assigned to work objects.

When you create candidate objects, you can select attributes for them that are later used in rules or mappings. These candidate objects also become candidates that are available for association when you create work objects. When you create work objects, you can select attributes for them also, as well as associating one or more candidates.



## Work Objects

A work object is a business object that requires assignment such as a lead or an opportunity. Creating a work object involves entering its application information, selecting its attributes to use during assignment, and associating one or more candidates.

## Candidate Objects

A candidate object is a business object, such as a resource or a territory, that is associated with one or more work objects for eventual assignment. Creating a candidate object involves entering its application information and selecting its attributes to use in rules or mappings. A special type of candidate object is a classification object. This type of candidate object does not represent a business object that gets assigned to a work object. It is used only with classification rules and is used primarily to rank or qualify leads.

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### Note

As candidate objects are created, they become available as candidates that can be associated with one or more work objects as part of the work object creation process.

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The administrator needs to define the association between the work object and candidate object. For example, the Lead work object may have an association with both the Territory candidate object and the Resource candidate object. This implies that Assignment Manager can be used to assign Territories and Resources to a lead.

In the related Candidates tab for the Revenue work object an administrator can define the association between the work object and candidate object. For example, the revenue work object may have an association with both the territory candidate object and the credit allocation template candidate object. This association indicates that Assignment Manager can be used to assign both territories and credit allocation templates to revenue lines.

## Related Candidates

To relate a candidate object to a work object, use the following fields:

- **Assign Candidates:** Indicates that Assignment Manager performs the assignment. If not set, then Assignment Manager is used to find the matching candidates, which are then passed to the calling application to update the work object.
- **Custom Logic:** Indicates that Assignment Manager passes the result of the assignment matching to the callback function of the work object. For example, Opportunity Management uses custom logic that updates the sales team with the territory members. It stamps the territories onto the revenue line and adds the territory team members (resources) to the opportunity sales team.
- **Merge Assignment Candidates:** Controls whether the matching assignment candidates identified from processing each set of mappings should be merged. This is used to drive the merging of matching

candidates when multiple mapping sets are used in assignment processing. If the check box is checked, then the candidates are merged. The default is unchecked.

- **Keep Manual Candidates:** Indicates that manually assigned candidates are retained during assignment processing. This option can be used to prevent the removal of manually added candidates during reassignment. Sales Account and Opportunity Management have implemented their own lock assignment features.
- **Replace Candidates:** Determines whether unqualified candidates are removed from a team when an assignment runs. For example, the first time that Assignment Manager runs, a territory is assigned to a sales lead. When the reassignment process runs following a territory proposal activation, the territory is no longer valid. If Replace Candidates is set, then the territory is removed from the sales lead.
- **Candidate Exclusion:** Sales leads have a related object, which stores the excluded candidates for each sales lead. Assignment Manager accesses this information, which prevents assignment of the work object to an excluded candidate.
- **Parent Attribute:** Used by territory based assignment to determine the hierarchy of matching territories, eliminate all parent territories, and only return and assign the matching leaf node Territories. If this attribute is not used, then all matching territories (parent or leaf ) are returned and assigned.
- **Candidate Differentiation Attribute:** Stores the attribute on the candidate object that is used for discriminating matching candidates. For example, in Revenue line assignment, this attribute enables matching leaf territories of many territory types (such as Prime, Channel Sales Manager, and so on) to be assigned. The Candidate Discriminator Attribute is only relevant for territory-based assignment and can only be selected if a parent attribute has been selected.
- **Coverage Attribute:** The territory attribute used to denote whether the candidate in the matching candidate list has a regular, included, or excluded coverage.
- **Maximum Number of Candidates:** The maximum number of candidates returned for the work object and candidate object combination. The default value is 100.
- **Manual Attributes:** The attribute that identifies a candidate was manually assigned, rather than by the system. This attribute is used with the Keep Manual Candidates attribute.
- **Keep Manual Candidates:** A flag to retain manually assigned candidates when assigning or re-assigning a work object. This option is only relevant if the manual attribute is defined and the Assigned Candidates option is checked.

**Replace Candidates:** Indicates whether non matching candidates will be removed when re-assigning a work object. In an example scenario, in the first time assignment runs, territory A is assigned to a sales lead and there is a change within the territory definition. When the sales lead is

reassigned, territory A is no longer valid. If this option was selected, then territory A is removed from the sales lead.

- **Score Attribute:** The score attribute in which the calculated score is stored.
- **System Attribute:** The attribute that identifies a candidate was assigned by the system, rather than manually.

## Selecting Attributes

Attributes are elements in the view object defined for an assignment object. For each assignment object, you can select one or more attributes that you want to use when configuring assignment rules or mappings. For example, for a work object like sales account, you might choose the attributes of Named Account Flag, Customer Size, and Organization Type. When you configure assignment mappings for the sales account work object, your chosen attributes are available. You could create a mapping for Sales Account using the Named Account Flag attribute.

When selecting attributes for a candidate object, you will not only select the attributes you want to use when configuring assignment rules and mappings that involve that candidate object, but you also want to select the attributes for that candidate object that you want to appear in the screen that displays recommended candidates after assignment manager is run. For example, if a candidate object is resource (sales representative), and you want to show sales representatives' first names, last names, and phone numbers when they are recommended during assignment processing, you need to select the attributes for the resource candidate object that correspond to first name, last name, and phone number, and specify the order in which these attributes appear in the recommended candidates screen.

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### Note

This feature is not used by any CRM applications at this time.

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## Adding an Assignment Object

The Manage Assignment Objects pages enable you to define and edit the Work and Candidate objects as well as define any territory-based mappings. The figure above shows the relationship between the work and candidate objects and the mapping of the matching candidates to work objects.

When you add or edit a work or candidate object there are several key pieces of information that are required in the definition:

- **Name:** a unique name for the object with an optional description.
- **Code:** a unique code used in processing the object.
- **Work/Candidate Object check boxes:** indicates if the object is a work object, candidate object or both.
- **Application Module:** an Oracle Application Development Framework (ADF) business component that encapsulates the business service methods and UI-aware data model for a logical unit of work related to an end-user task. Enter the fully qualified definition name of the consumer application, Application Module. Valid for top level Work and Candidate objects. Child objects automatically inherit this value from its parent.

- Application Module configuration: Valid for Top Level Work and Candidate objects except Classification Candidate objects. Child objects will automatically inherit this value from its parent.
- View Object Instance: used to define the data model of a view object component when designing an application module, for example, Opportunity. Valid for all levels of Work and Candidate objects except Classification Candidate objects.
  - View Criteria may be defined to filter the information for the rows of a view object collection. Valid for top level Work and Candidate objects except Classification Candidate objects.
- Primary Key Attribute 1: First or only attribute that makes up the object primary key. Valid for top level Work and Candidate objects except Classification Candidate objects.
- Refresh Interval: the number of minutes between refreshes of candidate object data. The default setting is 0 minutes. Valid for top level Candidate objects except Classification Candidate objects.
- Initial Caches: The initial size of the cache when processing an object. This value will be used the first time the engine processes objects or following a server bounce. The default value is 2, and the maximum value is 20. Only valid for top level Candidate objects except Classification Candidate objects. All Work Objects that are used for scoring, Lead, for example, use the Product Level (MOW\_SCORING\_INITIAL\_CACHES) Initial caches for scoring rules profile option value.
- Maximum Caches: The maximum size of the pool/cache when processing the object. The default value is 5, and the maximum value is 25. Only valid for top level Candidate objects.

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#### Note

All Work Objects that are used for scoring, Lead for example, use the Product Level (MOW\_SCORING\_MAX\_CACHES) Maximum caches for scoring rules profile option value.

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- Score Attribute: The attribute on the object that stores the total calculated score after an assignment request has been processed. Valid for top level Work objects only.
- Assignment Date Attribute: The attribute on the object that stores the assignment date after an assignment request has been processed. Valid for top level Work objects.
- Exclude Assignment Attribute: The attribute on the object that stores the setting for excluding a work object from assignment. Valid for top level Work objects.

#### Adding Assignment Object Attributes

Assignment Manager allows users to specify a set of attributes from the assignment object VO to be used during the assignment evaluation. The assignment engine will load these Assignment Object Attributes for each

assignment object VO row, in addition to any primary key or assignment attributes. This is designed to improve performance by not loading those attributes not used for the assignment evaluation.

Assignment Object Attributes should be defined for each work object and any child objects as well as each candidate object to be used by the Assignment Engine.

- **View Object Attribute:** Name of each attribute in the view object defined for the assignment object. Assignment Rules or Mappings can be configured using these attributes. For Candidates Objects, the attributes that appear in the interactive assignment UI should also be selected.
- **Candidate Information Sequence:** The sequence that this attribute is displayed in the Interactive Assignment UI.

### Setting Up Assignment Mappings

Assignment mappings drive territory-based assignments. These mappings identify the dimensions, attributes, and territory filtering used in territory-based assignment processing. Dimension mappings and some attribute mappings have a sequence which controls the order in which these mappings are used during territory matching. Mappings that do not have a sequence are used together at the end of the matching process. A default set of mappings is seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Assignment Manager has an indicator in the related **Candidates** region to control whether to merge the matching assignment candidates identified from processing each set of mappings. This indicator is used to drive the merging of matching candidates when multiple mapping sets are used in assignment processing. If the box is checked, then the candidates are merged. The default is unchecked.

You can use the following assignment mappings:

- **Attribute Mapping:** An example is assigning territories to a sales lead where the territory partner program ID is the same as the sales lead partner program ID. In this case, the territory is matched when the territory program ID is equal to the sales lead attribute program ID.
- **Dimension Mapping:** An example is assigning territories to opportunity revenue lines based on the product associated with the revenue line. In this case, the product dimension is selected as the mapping type. The candidate object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low attribute and high attribute correspond to the names of the low sequence and high sequence attributes for product on the revenue line.
- **Mapping using alternative attributes:** Using the same scenario, if a revenue line does not have a product assigned to it, but has a product group assigned, add the low sequence and high sequence attributes for product group are entered for the work object alternate low and high attributes.
- **Mapping using default values:** Using the same scenario, if the low sequence and high sequence attributes for product on a specific revenue

line do not contain values, then the low and high default values for the product attribute for all revenue lines are used.

- **Literal Mapping:** A way of filtering the matched territories based on specific values of a territory attribute. For example, by only matching with territories that have a sales account centric coverage model. For example, territory coverage model equals `SALES_ACCOUNT_CENTRIC`.

## Configuring Assignment Manager: Critical Choices

Assignment is the process for selecting a candidate as an object and executing the association to a work object. Assignment consists of two phases. The first phase is the matching phase, where matching rules or mappings are evaluated to find the right assignees from a list of possible candidates. The second phase is the disposition phase, where the disposition, or assignment, of matching candidates is handled. Assignment Manager is the tool used to establish the business objects that require assignment, and to create the rules and mappings that dictate the selection and assignment of resources and territories. Candidates are potential assignees for a work object. A work object is a representation of an application business object inside Assignment Manager. A work object captures the attributes of a business object and associated child objects to be used for matching purpose. To best plan the configuration of Assignment Manager, you should consider the following points:

- Business objects
- Attributes
- Resources and territories
- Assignment disposition
- Mappings sets and mappings
- Rules

### Business Objects

A business object is a data entity or a collection of data treated as a unit, such as a sales account, an opportunity, or a lead. Any business object that requires the assignment to act upon it is considered a work object by Assignment Manager. The work object is a representation of the business object, and mappings and rules are developed to ensure timely and accurate assignment of candidates (for example, territories or resources) to those work objects. When configuring Assignment Manager, carefully consider which of your business objects require assignment, and create work objects only for those that do.

A set of business or assignment objects is seeded for the assignment of territories or resources to sales accounts, opportunities, and leads.

### Assignment Disposition

After you determine the business objects (work objects) that require assignment and the candidate objects that you will assign to them, you must decide how the matching candidate assignment disposition will be carried out. Consider these questions:

- Do you want to assign a single resource or multiple resources?
- Do you want to automatically assign matching candidates or run custom logic against matching candidates?
- Do you want to record the matching candidate score on the work object?
- Do you want to retain manually assigned candidates when assignments are processed?
- Do you want to replace disqualified candidates when assignments are processed?

## Attributes

To ensure that candidates are properly assigned to work objects, create mappings and rules. These mappings and rules employ attributes to determine the best assignments. As you set up work objects and candidate objects in Assignment Manager, also select the attributes of those objects that you want to use in your mappings and rules. For example, you might want to assign a resource such as a specific sales representative to a business object, such as opportunity, based on the risk level of the opportunity. In this case, when you create the opportunity work object and the sales representative candidate object, you will select the attribute of opportunity that corresponds with risk level, and the attribute of the sales representative that corresponds with skill name or e-mail address. Selecting these attributes makes them available for mappings and for conditions on your rules, so ensure that you select the attributes that reflect the criteria that you want to use for matching candidate objects to work objects.

## Mappings Sets and Mappings

Assignment mapping sets and their related mappings drive territory-based assignment. The mapping sets determine the sequence of mappings and which mappings are used in territory-based assignment. The mappings identify the dimensions, attributes, and territory filtering used in the assignment processing. Default mapping sets and their related mappings are seeded. This seeding assumes that opportunities, leads, and sales accounts use the same territory hierarchy.

Create the mappings using the work objects, candidate objects, and attributes that you already established. When designing your mappings, carefully consider the dimensions and attributes you use in your territory structure and how you want to match these territory candidates to work objects.

## Rules

Rules are defined for the execution of rule-based assignment. Rules are designed to return candidates based on whether these candidates match a set of criteria, are within a defined scoring range, or are of a specific classification.

Create the rules using the work objects, candidate objects, and attributes that you already established. When designing your rules, carefully consider how you want to match candidates to work objects. For example, would you want resources assigned based on their geographic location, their product knowledge, on the status or score of an object, or a combination of any of these attributes? Do you want to match candidates only, or would you like to match candidates and

score them? In a multiple-candidate scenario, do you want to assign all matching candidates or only those who achieve higher than a specific score? Consider these questions before creating rules.

## Creating Assignment Mappings: Examples

For territory-based assignment, you create work-object-to-candidate-object mappings during assignment object creation. These mappings are used to make candidate assignments. You can create multiple types of mappings for assignments. The following scenarios illustrate these different mappings:

- Creating an attribute mapping
- Creating a dimension mapping
- Creating a literal mapping

### Creating an Attribute Mapping

You want to assign territories to a sales lead when the territory program ID is the same as the sales lead program ID. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Select the territory when the attribute territory program ID is equal to the sales lead attribute program ID.

Another example would be if you want to assign territories to a sales lead based when the territory manual account inclusion or exclusion is the same as the account on the sales lead. Create a mapping where the work object is sales lead and the candidate object is sales lead territory. Match the territory when the territory attribute account node integration (AccountNodeIntgId) ID is equal to the sales lead attribute party ID.

### Creating a Dimension Mapping

You want to assign territories to opportunity revenue lines based on the product associated with the revenue line. Create a mapping where the work object is opportunity revenue line, and the candidate object is territory. Select the product dimension as the mapping type. The candidate object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the territory. The work object low and high attributes correspond to the names of the low sequence and high sequence attributes for product on the revenue line. For example, the low sequence attribute for product on the revenue line might be called `ProdSeqLow`.

- Mapping using alternative attributes: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated with the revenue line, you might encounter a situation where a revenue line does not have a product assigned to it, but it does have a product group assigned to it. Create the same mapping that you created for the dimension mapping scenario, and add the names of the low sequence and high sequence attributes for product group for the work object alternate low and high attributes. For example, the alternate low sequence attribute for product group on the revenue line might be called `ProdGrpSeqLow`.
- Mapping using default values: Using the same scenario of assigning territories to opportunity revenue lines based on the product associated

with the revenue line, you might encounter a situation where the low sequence and high sequence attributes for product on a revenue line do not contain values when assignments are processed. Create the same mapping that you created for the dimension mapping scenario, and add low and high default values for the product attribute for revenue lines.

### Creating a Literal Mapping

Literal mappings are a way of filtering the matched territories based on specific values of a territory attribute. You want to find only territories that are finalized (for example, territory status equals FINALIZED).

## Candidate Refresh: Explained

Rule-based assignment requests that identify matching candidates or scores for matching candidates use candidate data such as resources. This candidate data is loaded into a cache and used for each assignment request until the cache is refreshed. Oracle Fusion Assignment Manager supports the ability to refresh the candidate data cache at regular intervals. The Fusion Enterprise Scheduling Service (ESS) process **Refresh Cache** is used to set an indicator that the candidate data should be refreshed the next time there is an assignment request using that candidate.

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### Note

This feature affects rule-based assignment using the rule set types of matching candidates or matching candidates with scoring only.

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Implementations may schedule this process daily, weekly, and so on, as required by the frequency of changes to the candidates. Consider how often the candidate data will change and how critical it is to have the changes available for use in assignment. For example, resource details may change daily and therefore the resource candidate data cache for Lead Management may need to be updated once per day.

As indicated in the note above, the **Refresh Cache** process should be defined for each candidate object and application that uses Rules-based Assignment candidate matching or candidate matching with scores. The process has the following parameters:

- Owner Module, such as `sales`, or `leadMgmt`
- Candidate Object Code, for example `Resource_Candidate_Object`.

For example, there would be one ESS process scheduled for Lead Management with the parameters: `leadMgmt / Resource_Candidate_Object_Lead`. Sales would need two processes scheduled: One with parameters `sales / Resource_Candidate_Object` and the other with the parameters `sales / Credit_Allocation_Template_Candidate_Object`.

## Lead Assignment: How It Is Processed

Once lead data is cleansed, created, enriched, and scored, the leads need to be assigned. Leads can be assigned based on several criteria. For example, you

can configure Assignment Manager to assign leads based on the lead source, geography, named accounts, (such as the top 20), industry, product, partner (for working with a partner organization), and primary sales channel associated with the lead or associated marketing campaign that generated the lead.

## Components That Affect Lead Assignment

The following lists the components that influence the assignment of leads:

- Lead work objects
- Lead candidate objects
- Attributes
- Mapping and rule conditions

## How Leads Are Assigned

Lead Assignment process evaluates both rules as well as territories for lead assignment. Since leads on sales prospects cannot be distributed based on territory definition, they are assigned based on simple rules evaluation. Territory-based evaluation can be supplemented by adding filtering rules to further refine the lead assignment. The territory-based evaluation component uses the lead work object and territory candidate object data, and the mappings between the territory dimensions and lead dimensional attributes to execute the assignment processing.

Set up the following for assigning leads:

- Set up the necessary lead work objects, and associated candidate objects to be assigned by Assignment Manager.

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### Note

A default set of lead work objects and associated candidate objects are seeded.

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- Set up rules and rules set specific to your business requirements. For example, set up an assignment rule to assign leads with deal size less than a certain amount to partners.
- Set up object mappings for territory-based assignment. For example, assign a lead to those territories where Territory dimensional attributes are mapped to corresponding Lead attributes. Territory-based assignment relies on an association between attributes on the lead work object and attributes on the lead territory candidate object to match the candidates to the work object.
- Set up rules to filter territories that match the lead based on additional information on the lead. For example, set up rules to exclude prime sales territories that match leads which are unqualified.

For territory-based assignment, the lead work object and lead candidate object must have attributes that share the same domain of values. The mapped attributes are used for matching appropriate candidates for a work object. For

example, a sales lead (work object) has a geographic location attribute. The lead candidate object (territory) has also a geographic location attribute. These two attributes are mapped to each other.

## Disposition Logic: How It Is Processed

Assignment Manager, a part of Oracle Fusion Management of Work, uses a two-step process to assign candidates. The first step is the selection of Candidates with the Assignment Manager application. Candidates to be assigned to the work object are determined by territory-based mapping, rule-based assignment, or territory-based mapping with rule-based filtering.

Disposition is the second step. The selected candidates are written to the work object table or the work object child table based on the selected disposition logic. This has several possible outcomes, but it is based on two principal logic features. The first is the delivered Assign Candidate logic. The second is Run Custom Logic, a way for you to define the assignment disposition of the candidate object. For example, you may want to e-mail a specific list of candidates, or write the selected candidates to a specific table. Run Custom Logic can be used in conjunction with the Assign Candidate logic.

## Settings That Affect Disposition

By designating Assign Candidate, Assignment Manager can work with one or multiple candidates that have been returned in the selection process.

- **Single Candidate Returned:** Assignment Manager writes the candidate back to the work object table based on the primary key attribute fields that you must enter for that work object table.
- **Multiple Candidates Returned:** A work object child table is designated to record these candidates. Then you indicate at least one and up to three attributes that serve as the primary key fields. There are two choices for how to write the resulting candidates, Replace Candidates and Keep Manual Candidates.
  - **Replace Candidates:** When the Assign Candidates logic is run, the results are compared to any results already in the work object child table. If Replace Candidates is checked, any existing candidates are removed and replaced with the new results. No manually entered candidates will be affected.
  - **Keep Manual Candidates:** Some applications using Assignment Manager allow manual entry of candidates. When a candidate is entered manually, there is an attribute that indicates manual entry that is set to Y or Yes. When Keep Manual Candidates is checked and the manual attribute indicated, Assign Candidates logic will disregard these candidates when writing to the work object child table.

Selecting Run Custom Logic allows you to develop your own code to perform specific actions on or with the candidates that are returned from the selection process. When this option is chosen, after the selection process, Assignment Manager will use a callback function in the application module which will call

your custom logic code and pass on the information received from the selection process.

## How Disposition Logic Is Processed

Assignment manager selects the candidates and then passes in the results from the selection phase to either the assign candidate or custom logic or both.

If you check both Run Customer Logic and Assign Candidates on the user interface, the assignment engine will invoke the Assign Candidates logic first and then execute the Custom logic.

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### Note

If you are using credit allocation templates in Oracle Fusion Opportunity Management, you may wish to leave both Run Custom Logic and Assign Candidate unchecked. Opportunity Management uses Assignment Manager to find matching credit allocation templates. In this process, Assignment Manager passes the template IDs back to Opportunity Management which does the assignment. No custom logic is involved and Assignment Manager does not perform the assignment.

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## Using Territory-Based Assignment with Rule-Based Filtering: Example

In this example, sales leads with sales accounts can be assigned one or more territories and supplemental lead team resources. Prospect leads can be assigned one or more resources. Assignment Manager is used to determine matching territories as well as matching resources. In Oracle Fusion Partner Relationship Management implementations, all territories (prime, overlay, partner, and so on) matching a given lead may be identified. Rule filtering may then used to affect the type of territories (partner versus prime) that are assigned based on the value of specific attributes (for example, sales channel or deal size) on the lead.

### Scenario

Acme, Inc., wants to assign new leads to the correct territory and then assign them to the correct sales lead. If there is no sales channel assigned, determine if the deal should go to a partner or remain internal. If the deal is internal then only the prime territories are assigned. If the deal is pushed to a partner, a channel manager is also assigned to oversee the deal.

### Transaction Details

The primary marketing business objects processed by the Assignment engine are Leads. The assignment of territories is the primary means of assigning the appropriate sales people to the lead. Rule filtering may also be used to filter the territories when the sales channel is not identified. Prospect leads are processed by the assignment engine in order to identify additional resources based on the information on the leads (such as deal size)

Oracle Fusion Lead Management calls the Assignment Manager with the Work Object designated as Lead and territory as the Candidate Object with

the assignment type of territory-based assignment. This determines the list of territories. Assignment processing then calls the Rule Set Group that contains the rules for the territory-based assignment with rule filtering.

While the territory-based assignment delivers a list of territories, the rules can fine tune the assignment process:

1. Rule for SALES CHANNEL != NULL
  - a. SalesLead.Sales Channel != NULL
  - b. Action: Return matching candidates
2. RULE for SALES CHANNEL = NULL, Assign Channel Manager
  - a. Sales Lead.Sales Channel = NULL
  - b. Sales Deal.Deal SizeAttribute < 1,000,000
  - c. Territory.Territory Type In Partner, Sales Channel Manager
  - d. Action: Return matching candidates
3. RULE for SALES CHANNEL = NULL, Assign Prime
  - a. Sales Lead.Sales Channel = NULL
  - b. Sales Deal.Deal SizeAttribute > 1,000,000
  - c. Territory.Territory Type = Prime
  - d. Action: Return matching candidates

### Analysis

When the lead comes in, it needs to be assigned to a territory for follow up. Based on the above rules, you can determine if this is a smaller deal that can be handled by your partners (and a Sales Channel Manager to oversee), or it is a larger deal that needs to be followed up by the internal sales force.

The assignment engine first identifies the list of territories for the lead. The rules then determine who gets the deal:

1. This first rule determines if a sales channel value exists. If it does, then all territories identified (by way of territory-based assignment) are assigned.
2. The second rule says if there is no sales channel assigned, and the deal is under one million dollars, assign the Lead to a Partner and Sales Channel Manager.
3. And the final rule is used when there is no Sales Channel value, and the deal is greater than one million dollars, the lead is assigned to the prime (internal) territories.

## Territory Lead Assignment: Examples

Leads are assigned to the appropriate territories based on matching lead attributes to territory dimensions.

A territory is the jurisdiction of responsibility of a sales resource over a set of sales accounts. Use territory-based assignment to assign sales territories to leads.

## Assign territories to lead territory team

Assignment Manager can be set up to automatically assign sales territories to the lead using territories defined in Territory Manager. For example, a salesperson navigates to the leads list and opens the newly created lead. Using the Reassign action, the salesperson invokes Assignment Manager and selects an option to run automatic assignment immediately to reassign the lead to the appropriate territories.

## Territory-based assignment mapping

Territory-based assignment mappings are predetermined and are available as part of the Lead Management functionality. Predefined mappings are leveraged for matching the correct territories with each lead. For example, you can choose to map the location attribute on the lead to the geography attribute on the territory. Any territories where the geography value matches the location of the lead is matched and assigned the lead.

## Analysis

Ensure you have defined your territory boundary based on dimensions. There is only one set of mappings for a work object and candidate object combination. The mappings for various assignment scenarios (such as assignment of a territory to a lead) must be setup through a mapping that assigns appropriate sales territories to a lead territory team. If the lead needs rule-based assignment, then rule sets are used. If the lead needs territory assignment only, then the rules may not need to be used.

You can enable only the dimensions that your organization requires for defining territories. The following examples illustrate different dimensions used to assign sales leads to the correct sales territories.

Dimension	Use
Geography	For most of your sales activities, you want to assign salespeople by city and postal code.
Account	You have a few key accounts that should belong to top salespeople. Use the account dimension to create territories for individual sales accounts.
Customer Size	One product line is suitable only for organizations above a certain size, and you have a few skilled salespeople for that product line. Use the customer size dimension to assign skilled salespeople to the larger customers for the product line.
Industry	You sell one type of service to telecommunications companies, another service to utilities, and a third service for insurance companies. You can create territories for each using the industry dimension.
Product	You sell a product line that requires salespeople to have a high degree of technical knowledge. Create separate territories for this product line.
Sales Channel	Your sales department prefers to engage partners as indirect sales channel, and telesales functions in addition to the direct sales force. You can create territories for these different sales channels such as telesales, direct, and indirect sales channels.

# Lead Assignment Objects: Explained

Fusion Lead Management provides preconfigured work objects, candidate objects, and attributes to automate the process of assigning leads to salespersons, partners, sales resources, and sales territories through assignment manager.

Lead assignment selects a candidate for a work object and processes the association. You create rules with conditions that need to be met in order to make the appropriate candidate assignments. This is called rule-based assignment. Alternatively, you create attribute to attribute mappings between a work object and a candidate object in order to make the appropriate territory candidate assignment and this process is called territory-based assignment.

This topic outlines the following:

- Lead Work Objects
- Candidate Objects Available for Lead Assignment
- Lead Assignment Attributes
- Score Attribute

## Lead Work Objects

The lead work object is a representation of the lead business object. Creating a lead work object involves entering application information, selecting attributes to use during assignment, and associating one or more candidates. The Lead Management application has preconfigured the following lead work objects to ensure timely and accurate assignment of territories or resources to leads:

Lead Work Object Name	Represents ...
Sales Lead	A sales lead.
Sales Lead Partner	A partner associated with the lead or associated with the marketing campaign that generated the lead.
Sales Lead Partner Type	The primary sales channel associated with the lead or associated with the marketing campaign that generated the lead.

When implementing the Lead Management application, consider which leads require resource assignment. For example, you might decide that you do not want to assign resources to leads that are less than 100 dollars in value, but want to assign resources to leads that have a deal size of 100 dollars or more.

## Candidate Objects Available for Lead Assignment

A candidate object is a business object such as a resource or a territory that is associated with one or more work objects for eventual assignment. As candidate objects are created, they become available as candidates that can be associated with one or more work objects as part of the work object creation process. Lead candidate objects are resources, such as a salesperson, or might be a virtual entity such as a territory, that are assigned to a lead work object. The Lead Management application has preconfigured the following lead candidate objects to ensure timely and accurate assignment of territories or resources to leads:

Lead Candidate Object Name	Represents ...
Sales Lead Territory	A territory evaluated for assignment to the sales lead team.
Sales Lead Resource	An individual resource evaluated for assignment to the sales lead team.
Sales Lead Rank	The rank value to assign to the sales lead based on rules.
Sales Lead Qualification Status	The qualification status value to assign to the sales lead based on rules.

Creating a candidate object involves entering application information and selecting attributes to use in rules or mappings. Consider the following questions when you enter candidate details and disposition information for your lead work object:

- Assign a single resource or multiple resources?
- Automatically assign matching candidates or run custom logic against matching candidates?
- Record matching candidate score on the work object?
- Replace disqualified candidates when assignments are processed?

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**Note**

A special type of candidate object is a classification object. This type of candidate object does not represent a business object that gets assigned to a work object. It is used only with classification rules and is used primarily to rank or qualify leads.

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You can choose to select multiple candidates and exclude other candidates when setting up assignment manager for leads. If you want to assign more than one candidate, select the combined work object and candidate object view instance that captures information for the candidate.

For mapping-based lead assignments, you can select from the following generation types:

Generation Type	Example
Dimension	Create dimension mappings between a work object and a candidate object in order to make the appropriate candidate assignment. In this scenario, a mapping is created between an attribute on the lead work object and the territory candidate object. The mapping is set up to map the Primary Product attribute on the lead to the Product attribute on the territory. Any territories where the Product Dimension value matches the Primary Product on the lead will be matched and lead is assigned to that territory.
Literal	Create literal mappings on a candidate object in order to make the appropriate candidate assignment. In this scenario, a literal mapping is created on the territory candidate object to exclude territories that are not Active. As a result, any territories which are not Active will not be matched.

Attribute	Create attribute to attribute mappings between a work object and a candidate object in order to make the appropriate candidate assignment. In this scenario, a mapping is created between the lead work object and the territory candidate. The mapping is set up to map the Partner attribute on the lead to the Partner attribute on the territory. Any territories where the Partner value matches with the Partner on the lead will be matched and lead is assigned to that territory.
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### Lead Assignment Attributes

Attributes are elements in the view object defined for an assignment object. To ensure that resources are properly assigned to business objects, you create mappings and rules. These mappings and rules employ attributes to determine the best assignments. As you set up your lead work objects and lead candidate objects in Assignment Manager, choose from the preconfigured attributes for those lead work and candidate objects that you want to use in your mappings and rules.

For example, you might want to assign a candidate such as a salesperson to a lead work object based on the geographical location of the salesperson. In this case, you select the attributes of the lead work object and the salesperson candidate object that correspond with geographical location. Selecting these attributes makes them available for mappings and for conditions on your rules, so ensure that you select the attributes that reflect the criteria you want to use for matching resources to business objects.

The following table shows the preconfigured lead candidate objects and associated lead attributes excluding ID attributes.

Lead Candidate Objects	Associated Lead Attributes (ID's excluded)	Updated Attribute
Territory	<ul style="list-style-type: none"> <li>• ChannelType</li> <li>• ClassCode</li> <li>• DecisionMakerIdentified</li> <li>• OrganisationSize</li> <li>• PartnerChannel</li> </ul>	
Resource	<ul style="list-style-type: none"> <li>• PartnerType</li> <li>• Rank</li> <li>• Score</li> <li>• SorceCode</li> <li>• Status</li> <li>• StatusCd</li> <li>• Timeframe</li> <li>• ToReassignFlg</li> </ul>	

Lead Qualification	<ul style="list-style-type: none"> <li>• PartnerType</li> <li>• Rank</li> <li>• Score</li> <li>• SorceCode</li> <li>• Status</li> <li>• StatusCd</li> <li>• Timeframe</li> </ul>	StatusCd
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### Score Attribute

Score attribute is used to store the calculated score after a scoring request (based on Assignment Manager) has been processed.

Lead scoring associates a value to each lead based on weighted criteria and scoring attributes appropriate to your organization. It might be as simple as scoring based upon a certain lead attribute such as deal size, or it could be a combination such as, time frame, deal size and budget status. It can also depend on whether data is entered for some attributes or not. For example, at the initial stages, a lead that has a contact number may get 100 points, then if time frame is entered, it may get 200 more points. As a salesperson works on the lead and enters additional data for the lead, the score is automatically recalculated to reflect the latest truth. By giving a numerical score value for each lead, a salesperson can better prioritize their lead lists and focus on those leads with the greatest score value.

## Lead Assignment Rules: Explained

You can specify assignment rules and rule sets for assignment of resource candidate objects to the lead work object. Assignment Manager uses rules to evaluate and recommend candidate assignments for your specified lead work objects.

Assignment rules are created using work objects, candidate objects, attributes, and conditions. You can use multiple types of assignment rules and rule sets for assignment of candidate objects, such as rank, qualification status, and resources, to the lead work object. For example, you can specify the assignment rule that assigns resources to sales leads by assigning individual sales resources that meet the rule criteria.

### Assignment Rule Criteria

An assignment rule can have one or more assignment criteria. For example, all leads lower than a certain deal size, and for a specific product are all assigned to a specific Partner resource. Another example of creating an assignment rule might be if you want all leads that are generated based on a specific campaign, such as a CEO round table discussion event, assigned to a specific salesperson.

### Assignment Rule Considerations

When designing rules, carefully consider how you want to match the lead candidates to the lead work objects. For example, would you want resources

assigned based on their geographic location, or their product knowledge, or their skill level, or a combination of any of these attributes? Do you want to match candidates only, or would you like to match them and score them? In a multiple candidate scenario, do you want to assign all matching candidates or only those who achieve higher than a specific score? These are the basic decisions you should make before creating rules.

## Lead Ownership and Sales Team Resources: Explained

The market is typically organized into territories that comprise customers and prospects. Marketing is closely aligned with sales, and marketing activities are launched to generate leads and maintain the strength of the sales pipeline.

Resources who access leads have different roles as follows:

- Operations support for an automated process to capture leads, prioritize leads for sales engagement, and distribute the leads to appropriate sales or territory team resources.
- Marketing and the lead qualifier role involves lead monitoring, lead reassignment, and continuous review and adjustment of lead quality.
- Sales and territory teams enable lead qualification, perform follow-up lead activities, and convert leads to opportunities.

This topic explains:

- Lead, Sales, and Territory Resources
- Assignment of Leads to Marketing and Sales Resources
- Sales Resource Role
- Resource Privileges and Access Levels

### Lead, Sales, and Territory Resources

Sales resources are organized into flexible teams and are associated with the sales territories. These sales territories are then assigned to customers, leads, and opportunities to carry out the sales process. The lead follow-up process includes a lead team comprised of individual sales resources who are predominantly active during the lead qualification stage. A lead is then assigned to the appropriate sales team, and a territory team is created for the lead. All sales resources who are assigned to the territory team can view and follow up the lead.

### Assignment of Leads to Marketing and Sales Resources

Qualified leads are assigned to a sales team based on sales territories. Unqualified leads are assigned to individual lead qualifiers either manually or based on rules defined in Assignment Manager.

### Sales Resource Role

The sales resource performs the following activities:

- Review quality leads which are augmented with sales collateral, marketing content, customer contact interactions, and references.
- Qualify and assess the lead quality further with the help of customized assessment templates.

- Use the resource picker to manually select a resource to add to the team.

Include a description to indicate what role the resource has on the sales team. Many sales team members can access each lead, and each team member is identified as either an internal (sales force), or an external (channel partner sales force) resource. Each sales team member can be associated with a specific resource role to indicate what capacity the member has on the lead.

- Add additional contacts and products to the lead as the lead moves further down the sales cycle.

### Resource Privileges and Access Levels

Leads have three levels of access as follows:

Access	Privilege
Full	Read and update the lead and all child objects of the lead. Full access level allows you to update the sales lead team by adding or removing individual resources, or by updating the access level for any member.
View Only	View the lead and add lead notes. View the sales account associated with the lead, but no other leads or opportunities associated with the sales account. The View Only privilege also allows you to view most of the lead tabs.
Edit	Update all data on the lead except for Lead Team membership data and Lead Owner data.

When the lead does not have any owner, you must Accept the lead which makes you the lead owner. Only the lead owner and the management chain of the lead owner can change the lead owner.

Territory team members inherit the access level of the territory. All members of the sales territories assigned to the lead have full access to the lead. Owners of ancestor territories of all sales territories assigned the lead also have full access to the lead.

## Defining Automatic Assignment of Lead Team Resources: Example

Using a concurrent program, administrators can set up assignment manager to automatically assign lead team members and appropriate sales territories to leads. The concurrent program accepts criteria to determine the batch of leads to be assigned. During the rule-based assignment phase of the batch process, matching candidates are automatically added to the lead team. During the territory-based assignment phase of the batch process, territories are automatically added to the lead territory team.

### Scenario

The Automotive sector uses geography data and overall lead quality to periodically assign leads to automotive dealers. Leads can be automatically scored and ranked before being assigned a resource. Leads can be automatically

assigned through Assignment Manager by associating assignment criteria to assignment rules. Leads can be assigned based on Lead Source, Geography, Lead Score, Named Accounts, (such as the top 20), Industry, and Product. For cases where partners need to engage with customers, Assignment Manager can automatically assign partner leads to internal channel managers to ensure a timely sales follow up.

### **Manual Setup Assignment Manager Tasks**

The following setup tasks are performed manually through the Assignment Manager user interface:

- Define lead distribution rules
- Define partner matching rules
- Define what makes a quality lead for sales follow up
- Setup lead qualification rules
- Setup lead classification rules to assign leads to specific sales channel
- Setup lead routing rules to route leads to sales resources in a selected sales channel
- Setup lead distribution rules to assign leads to a specific salesperson or partner sales territories

### **Analysis**

If the lead needs rule-based assignment, then rule sets are used. If the lead needs territory-based assignment only, then rule sets are not used. During lead import, either ranking or scoring is used as the default qualification criteria. However, lead scoring can be followed by lead ranking where score is used to determine lead rank, and both Lead Score and Lead Rank can also be used as criteria for lead assignment

Provided that the following tasks are set to occur one after another by scheduling in sequence, then, when invoked in batch mode, Assignment Manager will automatically:

- Assign leads to sales channel
- Route leads to sales organizations and sales territories
- Assign leads to individual salespersons or partners

You can also manually assign leads to specific internal or external resources. The lead processing activity user interface supports the selection of the type of job, selection of rule set, filtering criteria for selecting leads, and scheduling options.

## **Sales Team Examples**

A lead sales team comprises assigned territories and individual team members. The following examples illustrate some of the features available for the lead sales team:

- Automate assignment of territories to lead territory team
- Automate assignment of individual salespersons to sales team

- Add ad hoc members to sales team
- Update access rights based on the resource
- Change the lead owner

### **Automate assignment of territories to lead territory team**

A lead exists with XYZ Company to purchase 50 large wind generator units in several Western Region states. To ensure that Western Region salespersons get assigned to the lead, the administrator has set up Assignment Manager to automatically add the Western Region territory to the lead territory team.

Sales departments arrange the sales force based on sales territories. Sales resources are organized into flexible teams and are associated with the sales territories. These sales territories are then assigned to customers, leads, and opportunities to carry out the sales process. A territory is the range of responsibility of salespersons over a set of sales accounts. Territories are assigned to sales accounts when the sales accounts are created. The lead sales team comprises the assigned territories and special resources who are manually assigned to the team on an ad hoc basis.

### **Automate assignment of individual salespersons to sales team**

The lead sales team for YXX company want to add a support person to the lead. Typically, support people are not part of any sales territory. There is a rule set group which assigns support team members as individual resources based on rules which match the lead product with the specific support team members.

### **Add ad hoc members to sales team**

Generally, sales team resources are automatically assigned to leads based on configured assignment rules. The following scenarios provide examples for when you may want to manually add additional team members to assist with the lead.

The lead owner, who has full access to the XYZ lead, wants to add one of his company's contractual experts to his team to help pursue the lead. The lead owner manually invokes a resource picker and selects the ad hoc resource that he wants to add to his team.

When pursuing a lead for an insurance policy, the customer contact requests a unique and complex combination of policy components that require an expert in the company to review. The lead owner adds the expert resource to the lead with full access so they can update the lead with valid combinations of products and services, and, if required, add more team members to the team.

Finally, a salesperson is pursuing a lead that requires the export of products outside the country. The salesperson wants to ensure there are no legal issues with exporting the products and adds a member of their company's legal counsel to the lead to review the details before contacting the customer again.

### **Update access rights based on the resource**

When a resource is initially added to the lead sales team through rules-based assignment, a profile option setting determines the member's default access level. Resources in the management hierarchy of a newly added team member have the same level of access to the sales leads as the team member.

All members of the sales territories assigned to the lead have full access to the lead. Owners of ancestor territories of all sales territories assigned the lead also have full access to the lead.

### **Change the lead owner**

Only the lead owner or the resources in the management hierarchy of the lead owner can change the lead owner.

## **Lead Scoring: Example**

A lead score is used only when the lead is easily quantified. The score may be used to calculate the lead rank. You can schedule when and how often to process lead scoring through Assignment Manager.

### **How Lead Score is Determined**

Lead scoring capability requires the rules engine to determine a numerical score based on the value of the lead attribute participating in the rule. For example, consider the following rule.

If a lead contact is a high level Executive, then add a score of 100. If the lead contact is an Operations Manager, then add a score of 50.

When this rule evaluates, it determines the score of the lead based on job title of the lead contact. Once the rules engine evaluates all such rules, the end result of the scoring process is the aggregate score, which is then recorded in the Lead Score attribute.

### **Data Points for Lead Scoring**

The following data points form part of the overall score evaluation:

- All data included on the lead and Primary product
- Lead source data such as campaign attributes
- All customer profile data including industry
- All contact profile data

## **Lead Ranking: Explained**

During lead management setup, you can predefine criteria to rank leads and automate the assignment of leads to the appropriate resource in your organization.

You can define lead rank to categorize leads into buckets such as Hot, Warm, or Cool.

The following data points are available to help evaluate lead ranking rules:

- All data included on the lead and lead primary product data
- All customer profile data including industry and customer size classifications
- All contact profile data
- All lead qualification data

Although lead rank and lead score are not the same, they serve a very similar purpose. Score is often used only when the lead is easily quantified, and then may be used to calculate the lead rank.

### Setting Up Lead Ranking

The following summarizes the lead ranking process for predefined lead work objects, rank candidates and associations:

- Select predefined lead work object in Assignment Manager.
- Select predefined ranking candidate object in Assignment Manager.
- Associate ranking candidate objects to lead work object.

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#### Note

There is no seeded mapping for the rank candidate object in the Assignment Objects. Mapping is only for territory-based assignment.

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- Use the predefined objects during the creation of assignment rules (rule-based assignment).
  - Assign rules to determine the appropriate classification of a work object that will provide a rank value for the lead.

### Creating Ranking Rules

Create a rule set with a rule set type of Classification Rule. Set the work object as lead and the candidate object as lead rank. Create a rule with conditions that match the attribute settings you want a lead to have in order to give it a rank value. For example, you might choose the "Decision Maker Identified" attribute name and then select the equal (=) operator. Finally, enter the value of True. Create your remaining conditions, and then enter the action for your rule, such as "Return the candidate value as Hot".

### Calculating Lead Rank Based On Score

You can schedule when and how often to process lead ranking where the lead rank value or score is calculated and displayed on screen. Ranking rules, used by Assignment manager, determine what rank to assign to a lead. You can also create ranking rules that use the lead score as the criteria to name each range of scores with a specific rank. For example, if lead score is between a value range of 0 and 39, create a rule to rank the lead as low priority. If the lead score is between a value of 40 and a value of 60, then you might want to create a ranking rule that assigns a medium rank to the lead. Assignment Manager passes the rank value to the Lead Management application and is presented in the user interface as a list. You can choose to override the value by select a different predefined rank code or value from the list. You can also choose the Rank option from the Actions menu to automatically assign a rank for your selected lead.

## Lead Ranking: Examples

You can define lead rank to categorize leads into buckets such as Hot, Warm, or Cool leads. Such categorization of leads enables a salesperson to quickly prioritize leads for follow-up activities.

## Creating a Lead Rank Rule

Your organization wants to assign a rank of Hot to those leads that have a set time frame and a decision maker identified. Assignment Manager for leads has predefined the lead work object and lead candidate object and you will set up an assignment rule to determine the appropriate classification to apply a rank to all leads for your organization.

1. From the Manage Sales Lead Assignment Rules page, create a new rule set.
2. Select the classification rule type, Sales Lead work object, and Lead Rank as the candidate object.
3. From the Associated Rule Set Groups tab, create a rule set group and name it Ranking. You can search and select another rule set group (if one exists), to associate to the classification rule type.
4. Set the conditions for each rule that the rules engine checks during assignment processing. For example, enter the following rule conditions:
  - Object: Sales Lead Work Object
  - Attribute: Time Frame
  - Operator: Equals
  - Value: Three months
5. Click Add Row icon in Conditions and enter the following details:
  - Object: Sales Lead Work Object
  - Attribute: Decision Maker Identified
  - Operator: Equals
  - Value: True
  - Action: Return the candidate value as Hot
6. Click Save and Close.

Assignment Manager will:

- Find the matching leads
- Execute the rules
- Assign the rank value
- Pass the rank value onto the lead

## Lead Qualification: Explained

Qualifying leads is an important first step in bringing the sales lead to a conclusion. At the end of the lead qualification process, the lead can either be classified as a qualified lead which is ready for conversion to an opportunity,

or can be retired if purchase interest for the lead cannot be validated. Lead qualification process can either be performed by internal marketing or internal sales groups.

What constitutes a qualified lead varies from company to company.

### **Basic Lead Qualification**

In some companies, the basic lead qualification data, including customer budget status and time frame, gathered by lead qualifiers is considered in the scheduled automated process that determines the lead qualification status value based on rules.

### **Additional Lead Qualification**

In other companies, a lead qualification questionnaire score is a factor used by the lead qualifier or salesperson to decide to manually set the lead to a Qualified status using the lead actions menu. Your application administrator assigns the questionnaire to your Lead Qualification Template profile. The answers entered are assessed using a weighted scoring model with instant feedback available via a status bar.

## **Lead Status: How it Automatically Gets Set**

Lead quality is assessed as soon as a lead is generated. Lead quality of a newly created lead is mainly determined based on the characteristics of the customer contact on the lead, the type of response which caused the lead to get generated, and the nature of the campaign. Lead quality is further assessed based on the added qualification data such as customer need, urgency or time frame for the project, and whether the customer has set aside a budget for this product.

## **Settings That Affect Lead Qualification Status**

Leads can get their qualification status from:

- Assignment Manager rules

Rules-based leads qualification process helps standardize the lead qualification process. Based on the positive results to conditional rules, the value of the Lead Status attribute is set to Qualified. For example, a rule can be defined to update the lead as qualified if the customer's budget status is approved, the project time frame is three months, a decision maker is identified, and the response type is that they attended an event.

- A specified value in the campaign lead generation stage

A multistage campaign design can include lead generation stages. Lead options include the ability to designate a value for the qualification status. When the campaign is executed, the leads will be created with the value provided.

- An imported value

Leads imported through file import can include a designated lead qualification status.

## How Lead Qualification Status Is Calculated

In some companies, the lead qualification data gathered by lead qualifiers is considered in the scheduled automated process that calculates lead score or lead rank as well as assigning sales team territories. For such companies, a simple rule to move leads to a Qualified status when the lead score reaches a specific threshold is sufficient.

### FAQs for Configure Assignment Manager for Lead Processing

#### What's the difference between rule-based and territory-based assignment?

Territory-based assignment is the primary means of assignment for CRM objects. For territory-based assignment, you create work object to candidate object mapping sets during assignment object creation that are used to make candidate assignments.

Rule-based assignment is used for identifying supplemental resources or filtering the matching territories. Rules can also be used for scoring work objects and also for classification. For rule-based assignment, you use the rules editor to create expression-based rules that the assignment engine uses to make candidate assignments.

Territory plays a fundamental role in Fusion CRM. Using attributes it defines how a company is going to market. That is, how is that company deciding to deploy its Sales Resources to sell to Customers? Every Sales Account, Lead, and Opportunity has a territory or territories assigned. In many cases, customers will implement Territories down to the level of individual Sales Representative (that is, each Sales Representative will have his or her own Territory) in order to enable these capabilities at the granularity that they want, as well as the Sales Planning/Territory Alignment capabilities at the granularity that they want.

In a territory-based assignment scenario, you typically create a mapping set between a work object and a candidate object to make the appropriate candidate assignment. This mapping set can consist of 1 or more mappings between the work object attributes and the candidate object attributes.

A simple example territory-based assignment setup is a single mapping set between the opportunity revenue line work object and the candidate object of territory. This mapping set contains a single mapping which maps the attribute of location on the opportunity (the parent of the revenue line) to the geography attribute on the territory. Any territories where the geography value matches the location of the parent opportunity are matched and assigned to that opportunity revenue line. Another example would be two mapping sets defined between the lead work object and the territory candidate object. The first mapping set determines the assignment of territories to each lead based on a mapping between the industry of the customer on the lead and the territory industry dimension. This would be a literal mapping that filters the territories to those that have a status of finalized and a literal mapping that filters the territories to those that have a sales centric coverage model. The second mapping set is conditional and determines the assignment of partner channel manager territories. This mapping set consists of a mapping between the geography of

the primary partner on the lead and the territory geography dimension. This would be a literal mapping that filters the territories to those that have a status of finalized and a literal mapping that filters the territories to those that have a partner centric coverage model.

In a rule-based assignment scenario, you create rules with conditions that need to be met in order to make the appropriate candidate assignments. For example, a rule is created with the condition that the candidate object (resource) has a product skill rating that is greater than or equal to intermediate in order to be matched to the work object and be assigned.

The following chart compares the features and pros and cons of territory-based assignment and rule-based assignment:

Territory-Based Assignment	Rules-Based Assignment
<p>Pros:</p> <ul style="list-style-type: none"> <li>• User-friendly territory management</li> <li>• Minimal assignment configuration</li> <li>• Support for hierarchies</li> <li>• Preview of assignment</li> <li>• Reports to identify gaps and overlaps</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>• Additional administration required even with simple territory models</li> <li>• Single territory structure for CRM</li> </ul>	<p>Pros:</p> <ul style="list-style-type: none"> <li>• Familiar concept with expression-based rules</li> <li>• Any attribute can drive an assignment</li> <li>• Easy to define and maintain a small number of straightforward rules</li> <li>• Scoring and classification</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>• Unable to navigate hierarchies</li> <li>• Requires intensive effort to manage complex or large numbers of rule</li> </ul>

### What's the difference between literal, dimension, and attribute mapping?

**Dimension Mapping:** Dimension mapping should be used when the work object and candidate object attributes in the comparison are dimension attributes, such as Geography, Product, or Account. When creating the mapping, use the **Function Code** field to specify a unique identifier for the dimension. This identifier is passed to the translation function, in case the same function is used for multiple dimensions.

**Attribute Mapping:** This mapping enables you to compare and match attribute values between a work object attribute and a candidate object attribute. When the value of the candidate object attribute matches the work object attribute the candidate is selected. Attribute mappings should be used when the work object and candidate object attributes in the comparison are non-dimensional attributes. For example, consider a lead work object with a program ID attribute and the territory object with program ID attribute. The selection criterion is:  
`select Sales Lead Territories where Sales Lead Territory.ProgramID equals Sales Lead.LeadProgramID`  
 The assignment engine will use this mapping data to construct a query on the candidate object that is equivalent to the selection criteria. When creating the mapping, the Function Service and Function Code are only needed if a translations function is used. The function code field is used to

specify a unique identifier for the attribute, and this identifier is passed to the translation function.

**Literal Mapping:** Literal Mapping is used almost exclusively to filter the candidate objects. This form of mapping enables the comparison of candidate attributes against a specific value chosen by the user. The assignment engine will compare the mapped candidate object attribute against the specified literal value. For example, select the Territory Candidate object that has the attribute TerrStatusCode that equals the value `FINALIZED`.

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**Note**

For Literal Mappings ensure that the value entered corresponds to the Lookup Type Value code, not the meaning.

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**What happens if I mark an assignment object or one of its attributes as inactive?**

When the assignment object inactive box is checked the selected work or candidate assignment object is not available for assignment processing. When the assignment attribute inactive box is checked the selected work or candidate object attribute is not available for assignment processing.

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**Note**

The object or attribute cannot be set to inactive if there is a mapping set, mapping, or rule defined using the object or attribute.

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**How can I identify a Classification candidate object?**

Enter the word Classification in the Application Module field. This will create a candidate object that you can use when setting up classification-type rules; for example, rules that qualify or rank leads.

**How can I exclude a candidate from an assignment?**

You can exclude candidates during the assignment process by navigating to the Candidates tab. Scrolling down the section Exclude Candidates. Enter the View Object that controls which candidates are to be excluded and enter the selection criteria for up to three key fields.

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**Note**

The application using Assignment Manager needs to support a View Object that controls which candidates are to be excluded in order to use this feature.

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## Configure Assessment Reference Data for Sales Leads

### Sales Lead Qualification Template: Explained

Lead qualification templates enable a uniform lead qualification process across leads.

Using lead qualification templates, you can:

- Define Lead Qualification Templates
- Assign Lead Qualification Templates
- Gather Lead Quality Information

### **Define Lead Qualification Templates**

Qualification templates are collections of questions and answers that can be weighted and scored to evaluate the quality of gathered information about the sales lead. The templates are used to define consistent and specific qualification criteria for leads.

### **Assign Lead Qualification Templates**

Once the qualification template is defined, the template is assigned to the Lead Qualification Template profile available from the Manage Sales Lead Administrator Profile Values implementation task. If defining more than one qualification template, assign templates at the profile Site level.

### **Gather Lead Quality Information**

Along with other key qualification fields available in the lead, the qualification template questions display on the lead Qualification tab if you have enabled the Advanced Lead Qualification profile option. Lead qualification is typically conducted through phone conversations. As responses are entered for qualification questions, the qualification template's weighted score is calculated and a progress bar provides immediate rating and feedback.

## **Defining a Sales Lead Qualification Template: Example**

This example illustrates defining a lead qualification template to assess the basic quality of a lead.

### **Scenario**

XYZ Company sells alternative energy solutions to small businesses. They employ a group of people that qualify the basic information about a lead plus gather information needed by the sales team to prepare for follow-up sales calls.

Unqualified leads are generated from various sources and include when customers have requested more information from their website. Before creating the qualification template, XYZ Company evaluates the following:

- To verify the customer's intent in requesting more information and to ensure a consistent and thorough communication with the customer, a set of questions each lead qualifier is expected to ask is compiled.
- Once the initial information is gathered, only leads with a greater potential for a sale are transferred to the sales team. To assist the lead qualifier in identifying the leads to transfer to sales, the qualification information is categorized into four basic levels ranging from "very little information was obtained from the customer" to "a high potential of the customer working on an alternative energy project". Question responses are determined for each question including responses such as "Not applicable" and "Information not available" to ensure the full range of possible responses.

- Question responses and questions are analyzed and modeled to effectively place the qualification template weighted score ranges into the four categories. For example, a budget that expires less than ten days may score low if the average sales cycle is greater than 10 days but any answer to a budgeting question has higher weight in the overall questionnaire than a question about the customer's project team. If a qualification template's weighted score is 90 or above, the customer would be categorized as a high potential for an energy project and should be transferred to a sales resource to pursue.

## Defining the Qualification Template

Navigate to Manage Assessment Templates from the Manage Sales Lead Qualification Template implementation task. The following categories of qualification levels are entered as ratings of:

- Little Information Available
- Low Project Potential
- Medium Project Potential
- High Project Potential

Questions about the customer's budget, time frame, decision maker, and project drive the sale potential and resulting lead rank. These questions are not included in the qualification template since the lead qualifier will enter those directly in the lead user interface.

## Analysis

Since the qualification template will be used to better evaluate the customer's project and prepare the sales team to progress on the lead if the lead is qualified. A set of questions and responses are entered to qualify the time frame including what phase the customer's implementation project is in. To gather information to meet export policies, questions are added about implementation projects outside of the country. Questions are added to determine if and when a customer's budget will expire. To identify competition, questions and responses are entered about competing suppliers or in-house solutions and satisfaction levels. A free-form response is allowed to enable the lead qualifier to capture specific customer comments about their greatest issue they are trying to solve.

Next, the weighed scores ranges are assigned to the four ratings. To provide a visual queue and feedback to the lead qualifier to guide them in their decision to update the lead as qualified, a color and feedback phrase is entered for the four ratings. The color-coded bar, score, and feedback appear at the top of each qualification questionnaire in the lead.

Once the qualification template is defined, the template is assigned to the Lead Qualification Template profile available from the Manage Sales Lead Administrator Profile Values implementation task. Because there is only one business unit for XYZ Company and only one qualification template, the template is assigned at the profile Site level.

As XYZ Company continues to grow into a global company with a broader set of business units and products, Qualification templates are created in different languages and assigned to business unit sets. The appropriate qualification template is assigned to corresponding lead qualification users through the Lead Qualification Template profile.

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## Note

The Advanced Lead Qualification Enabled profile option must be set to enable you specify the template name to display the collection of questions, possible answers, and questionnaire feedback in the Edit Lead user interface.

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## Assessment Templates: Points to Consider

Assessment templates let you analyze the health of a business object, such as a lead or an opportunity, and suggest appropriate next steps based on its diagnosis. To best plan and create assessment templates, you should consider the following points:

- Ratings
- Questions, Question Groups, and Question Weights
- Responses and Scores
- Associated Task Templates

### Ratings

A rating is a textual qualification such as Excellent. There are three delivered ratings in the assessment template: Excellent, Average, and Poor. Ratings provide a metric other than a numerical score for qualifying the outcome of an assessment. Ratings are created at the beginning of the assessment template creation process. They are later applied to possible responses to questions in the template, which associates each rating with a score. An appropriate feedback will be displayed to you based on the completed assessment score once you submit an assessment. When setting up ratings and applying them to possible responses, it is important to remember that they and their associated feedback text will eventually display as part of the overall assessed health of a business object.

### Questions, Question Groups, and Question Weights

Questions are the main components of an assessment template. They are written such that they aid in systematically determining the health of a business object, and they are grouped into logical collections called Question Groups. Each question in the template is assigned a question weight, expressed as a percentage, which is the relative importance of the question within the template. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized response score given for the question to produce a weighted score for that question. When setting up questions, question groups, and question weights, it is important to carefully analyze which factors determine the health of a particular business object (like a lead or an opportunity) in your organization. Use those factors to create your question groups; and then, for example, write three to five questions per group that are weighted according to your analysis. There is no limit to the number of questions that can be in a question group, but each question group must have at least one question.

## Responses and Scores

Responses are attached to questions in the template. Each question should have at least two responses, unless it's a free-form only question. More than one response can be tied to the same rating but, between all of its responses, each question should accommodate at least two ratings, unless it's a free-form only question. For example, if your ratings are Excellent, Average, or Poor you may, for each question, include two responses that correspond to at least one of those ratings, such as average. There must be enough responses to cover at least two of the ratings such as Excellent and Average. You assign a score to each response for a question, and the application normalizes the score based on a standard scoring scale. When an assessment template is used to perform an assessment, a question's weight is multiplied by the normalized score of the response given for the question to produce a weighted score for that response. When adding responses to questions, ensure that the scores and ratings you assign to each response correlate. In other words, the higher the score you assign to the response, the higher the rating should be so that you have a strong quantitative relationship between the two. Also note that you can allow free-form responses for one or more questions in the template, but free-form responses are never scored.

## Associated Task Templates

A task template is an instruction to generate a group of related activities. You can associate task templates with an assessment template in order to recommend tasks that should be performed after an assessment has been done for a business object. When you associate task templates with an assessment template, you can indicate a score range for each task template, and based on the total score of any assessment that uses your template, one or more task templates will be recommended as follow-up activities. In order for a task template to be available to associate with an assessment template, it must be assigned to the same business object type as that assigned to the assessment template, and it must have a subtype of Assessment. Ensure that you have set up task templates correctly before attempting to associate them to assessment templates.

## Assessment Template Status Codes: Explained

Throughout the life of an assessment template, it can be assigned several different status codes.

These status codes control the actions you are allowed to make against an assessment template.

- In Progress
- Active
- Retired

### In Progress

This is the initial status of an assessment template. When an assessment template is at this status, you can edit any part of it. This is the only status at which you

can delete a template. If the template is not deleted, it moves to the Active status next.

### **Active**

This is the status assigned when the assessment template has been deployed for general usage. When an assessment template is at this status, you can make only minor textual edits to it, including, but not limited to, template description, question text correction, question sequencing change, response description, and score range feedback. From this status, you can move the template to Retired; you cannot delete it.

### **Retired**

When an assessment template is at this status, it is no longer available for general usage. You cannot edit any part of it, and you cannot move it to any other status; however, it can still be copied. Active templates that are deleted revert to this status.

## **Assessment Template Score Range: How It's Calculated**

The application calculates the score range for an assessment template using the question weights and the ratings and scores assigned to the possible responses for all the questions in the template. This topic explains when the score range is calculated and the components that are used in the calculation, so that you can make the best decision regarding the feedback text to apply to each score range. In addition to the automatic score range calculation, a manual method for adjusting score range is also available on the administration UI.

## **Settings That Affect Score Range**

In order for the application to calculate the assessment template score range, you must:

- Apply weights to all template questions.
- Configure ratings and apply them to possible responses for all template questions.
- Apply a score to each of the possible responses for all template questions.

## **How Score Range Is Calculated**

The score ranges for each rating in an assessment template are determined using the lowest and the highest weighted response scores for each question. So for each rating score range, the lower end of the range starts where the previous rating range ended, and the higher end of the range is the sum of the highest weighted scores that can be attained for that rating.

This table displays a simple example of the components used in the score range calculation.

Question (Weight)	Response (Normalized Score)	Weighted Score	Rating
What is the customer win? (20%)	Lower Operating Cost (100)	20	Excellent
	Higher Revenues (80)	16	Average
	Other (53)	11	Average
	Don't Know (27)	5	Poor
What is our win? (80%)	Reference (60)	48	Average
	Resale (50)	40	Poor
	Partnership (100)	80	Excellent

This table displays the score range calculation based on the components from the first table.

Rating	Score Range	
Excellent	65 - 100	
Average	46 - 64	
Poor	0 - 45	

---

#### Note

If a template administrator does not use a particular rating while assigning ratings to possible responses, this could result in improper score range calculations. To counteract this problem, the score range calculation uses a built-in correction algorithm to ensure proper score ranges. The correction algorithm works like this: For a question where a particular rating is skipped, the low score for the skipped rating is calculated to be equal to the high score of the next lower ranked rating. The high score for the skipped rating is calculated to be equal to the low score of the next higher ranked rating.

Using the ratings displayed in the tables above, if the rating Average is not used for a question's possible responses, the score range calculation assigns a low score to Average for that question that is equal to the high score of Poor for that question. It also assigns a high score to Average for that question that is equal to the low score of Excellent for that question. This ensures that the overall template score range for Average is calculated to fall between the score ranges for Poor and Excellent.

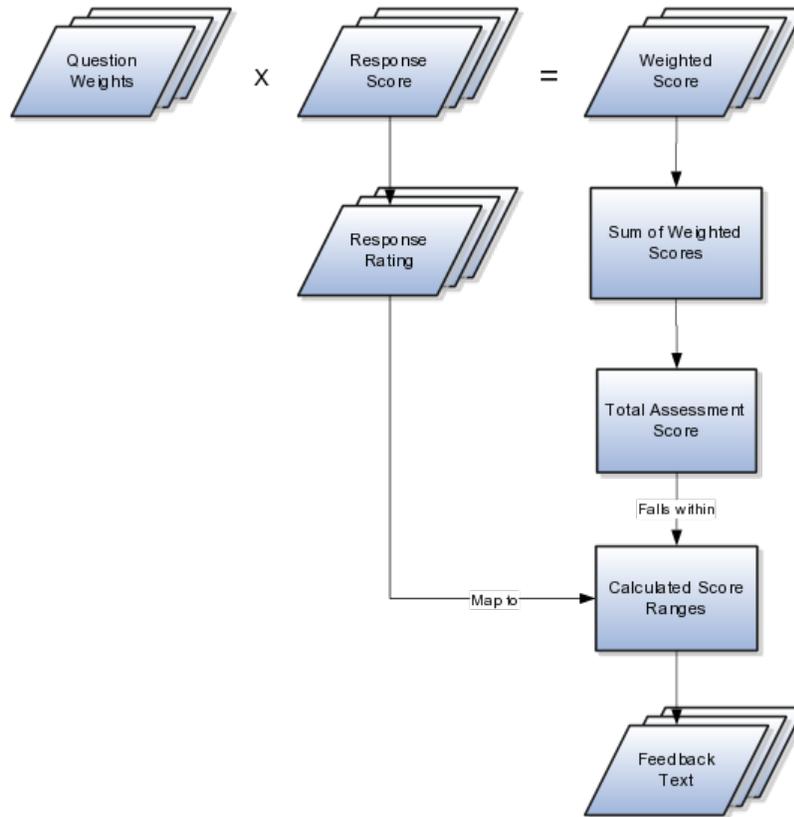
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## Assessment Template Components: How They Fit Together

The question weight, response score, and response rating are the assessment template components that fit together to calculate and display the overall assessment score, rating, and feedback text.

A question weight is multiplied by a response score to achieve a weighted score for an assessment template response. The weighted scores for all responses are added together to determine the total assessment score. This score will fall within a precalculated score range that is associated with a response rating and feedback text. Therefore, the score range within which the total assessment

score falls determines the rating and feedback text to display for a completed assessment.



## Question Weight

The question weight is the relative importance of a question within an assessment template, and it is expressed as a percentage. All of the question weights within a template must total to exactly 100. When an assessment template is used to perform an assessment, a question's weight is multiplied by the score of the response given for the question to produce a weighted score for that response.

## Response Score

A response score is the score assigned to a possible response to a question in the template. The template administrator sets response scores with no upper or lower bounds, and each score is normalized in order to accurately score an assessment that uses the template. The response scores are normalized by assigning a score of 100 to the highest response score, and then all other responses are assigned a normalized score relative to that highest score.

When an assessment template is used to perform an assessment, the normalized score of the response given for the question is multiplied by the question's weight to produce a weighted score for that response.

## Response Rating

A response rating is the rating assigned to a possible response to a question in the template. A rating is a textual qualification like Excellent or Poor that provides a metric other than a numerical score for qualifying the outcome of an

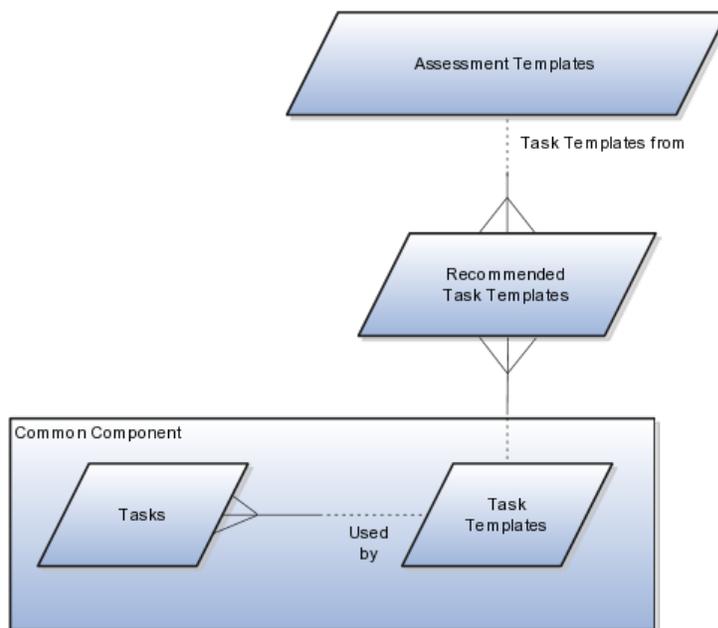
assessment. A response rating is directly related to a response score, and this relationship should ensure that a higher score will translate to a higher rating.

Early in the template creation process, the administrator configures ratings to assign to responses. The administrator then assigns scores and ratings to responses, and the system calculates score ranges based on those entries. Each rating is assigned to a score range, and the administrator is given the opportunity to apply feedback text to the rating-score range combination.

When an assessment template is used to perform an assessment, the weighted scores from all responses are added to determine the total assessment score. That score will fall somewhere within the calculated score ranges, which then determines which rating is assigned to the assessment and what feedback text to display. The maximum total assessment score is 100.

## Assessment Templates and Task Templates : How They Fit Together

One of the steps for creating an assessment template is associating task templates. You would take this step if you want to recommend sets of tasks to be done after an assessment is performed using your template. You associate task templates to ranges of scores in the assessment template, and where the overall assessment score falls within those ranges determines the tasks that are suggested to be performed after the assessment.



### Assessment Template

An assessment template is a set of weighted questions and possible responses used to evaluate the health of a business object such as an opportunity or a lead. An assessment template can be associated with one or more task templates that are recommended based on the outcome of an assessment.

### Task Template

A task template is an instruction to generate a group of related activities. By marking a task template with a subtype of Assessment, you make that task

template available for association with assessment templates. The task template's business object type should be the same as that assigned to the assessment template. When an assessment is performed using an assessment template that has associated task templates, one or more task templates are recommended based on the total score of that assessment and can be used to generate a list of activities to perform.

For example, you can associate a task template called Engage Business Development Manager with your assessment template called Potential for Win-Win. Associate the task template with the score range of 86 to 100, so if an assessment using the assessment template Potential for Win-Win scores within that range, the application recommends the Engage Business Development Manager task template and a list of follow-up activities based on that template can be generated.

## **FAQs for Configure Assessment Reference Data for Sales Leads**

### **What happens if I include a free-form response for a question?**

A score of 0 is assigned for free-form responses.

A free-form response option will have no effect on the overall assessment score. The free-form response offers the opportunity to enter a textual response to a question that does not conform to any of the pre-populated responses provided by the assessment template.

### **What's a Question Group?**

A question group is a logical grouping of questions within an assessment template, and it is used strictly as a category header for those questions. Through careful naming of a question group, you can achieve the benefit of providing the user of the template with an approximate idea of the type of questions to expect in each group.

### **Why am I being asked to enter question weights again?**

This step lists all of the assessment template questions in one place, and provides you with the opportunity to edit weights as necessary to ensure that the sum of all weights totals 100.

## **Configure Notes for Sales Leads**

### **Defining Notes: Points to Consider**

A note is a record attached to a business object that is used to capture nonstandard information received while conducting business. When setting up notes for your application, you should consider the following points:

- Note Types
- Note Type Mappings

#### **Note Types**

Note types are assigned to notes at creation to categorize them for future reference. During setup you can add new note types, and you can restrict them by business object type through the process of note type mapping.

## Note Type Mappings

After note types are added, you must map them to the business objects applicable to your product area. Select a business object other than Default Note Types. You will see the note types only applicable to that object. If the list is empty, note type mapping doesn't exist for that object, and default note types will be used. Select Default Note Types to view the default note types in the system. Modifying default note types will affect all business objects without a note type mapping. For example, you have decided to add a new note type of Analysis for your product area of Sales-Opportunity Management. Use the note type mapping functionality to map Analysis to the Opportunity business object. This will result in the Analysis note type being an available option when you are creating or editing a note for an opportunity. When deciding which note types to map to the business objects in your area, consider the same issues you considered when deciding to add new note types. Decide how you would like users to be able to search for, filter, and report on those notes.

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### Note

Extensibility features are available on the Note object. For more information refer to the article [Extending CRM Applications: how it works](#).

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## Configure Tasks for Sales Leads

### Turning a Business Process into a Task Template: Example

This example illustrates how to create a task template that represents a business process.

#### Scenario

A sales manager wants to create a task template for her department's client product demonstration process.

#### Client Product Demonstration Activities

The client product demonstration process occurs regularly. The sales manager does not want to manually create tasks for this process every time it occurs, so she decides to create a task template that includes the business process activities. Each time she repeats the business process, she can use the task template to automatically generate the appropriate tasks that need to be performed.

#### Analysis

The business process consists of the following activities:

- Book a conference room.
- Create an agenda.
- Confirm the date and time with the client.
- Make arrangements with presenters.
- Deliver product demonstration.
- Follow up with client.

Based on the analysis of the business process, the following task template is created:

## Task Template Name: Client Product Demonstration

Task	Category	Lead Days	Duration Days
Book conference room	Preparation	1	1
Create agenda	Preparation	1	1
Confirm date and time with client	Call	5	1
Schedule presenters	Preparation	5	2
Deliver demonstration	Demonstration	7	1
Follow up with client	Call	10	1

## Defining Tasks: Points to Consider

A task is a unit of work to be completed by one or more people by a specific completion date. When using tasks in your application, you should consider the following points:

- Tasks
- Task Templates

### Tasks

A task is defined with a description, due date and category. Each task has an owner, who oversees or is responsible for the task, and one or more assignees who perform the work. The task can be related to a business object, such as an Opportunity, a customer or, one or more external contacts. Tasks may also have Notes for general information, Attachments for tracking e-mail or project documents and Interactions which record customer communications.

### Task Templates

Often a set of Tasks are performed repeatedly for a particular process and to support this administrators can define Task Templates, which represent a group of tasks. These task templates can be invoked by users working on a particular business object, for example a lead, campaign, or an opportunity. The user selects the appropriate task template for the goal they want to achieve and this creates the tasks and associates them with the business object being worked on. This saves the user from creating multiple tasks when an Opportunity reaches a particular sales stage, or the same set of tasks each time a marketing campaign is created.

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### Note

Extensibility features are available on the Task object. For more details refer to the article [Extending CRM Applications : How It Works](#)

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### How can I create a task template that is available to associate with assessment templates?

Create the task template with a subtype of Assessment.

# Configure Sales Leads

## Sales Lead Lookups: Explained

Lookups enable quick selection from drop-down menus. Oracle Lead Management lookups are incorporated into its application to speed the process of entering data into forms.

The lookups listed in the following table display the lookup name and its associated values and description by lookup type and in alphabetical order.

Lookup Type	Lookup Values	Description
Lead Access Level	<ul style="list-style-type: none"> <li>Edit</li> <li>Full</li> <li>View only</li> </ul>	<p>Access levels for lead team members for a specific lead.</p> <p>Full access level allows the user to update sales lead team by adding or removing individual resources or by updating the access level for any member.</p>
Lead Assignment Process Type	<ul style="list-style-type: none"> <li>Assignment</li> <li>Qualification</li> <li>Ranking</li> <li>Realign with territories</li> <li>Scoring</li> </ul>	Lead processing types supported by Assignment Manager.
Lead Registration Approval Status	<ul style="list-style-type: none"> <li>Approved</li> <li>Pending approval</li> <li>Rejected</li> <li>Submitted</li> </ul>	Approval status for leads registered by partners.
Lead Registration Type	<ul style="list-style-type: none"> <li>Co-sell</li> <li>Referral</li> <li>Resale</li> </ul>	Types of leads available for partners.
Lead Acceptance Status	<ul style="list-style-type: none"> <li>No</li> <li>Yes</li> </ul>	Status that indicates whether or not a lead is accepted by sales departments.
Lead Assignment Status	<ul style="list-style-type: none"> <li>Assigned</li> <li>Reassigned</li> <li>Rejected</li> </ul>	Assignment status indicating whether sales team resources are assigned.
Lead Qualification Budget Status	<ul style="list-style-type: none"> <li>Approved</li> <li>Pending</li> <li>Unknown</li> </ul>	The approval status of a customer budget. Data used to assess lead qualification status.

Lead Channel	<ul style="list-style-type: none"> <li>• Direct mail</li> <li>• E-Mail</li> <li>• Fax</li> <li>• Phone</li> <li>• Sales visit</li> <li>• Web</li> <li>• Wireless message</li> <li>• Prediction</li> <li>• Model based prediction</li> <li>• Rule based prediction</li> </ul>	Source channel responsible for lead generation.
Lead Rank	<ul style="list-style-type: none"> <li>• Cool</li> <li>• Hot</li> <li>• Warm</li> </ul>	Lead rank values used as a measure of lead quality and prioritization.
Lead Reassignment Reason	<ul style="list-style-type: none"> <li>• No activity</li> <li>• Other</li> <li>• Workload</li> </ul>	Possible reasons specified for reassigning leads.
Lead Registered Status	<ul style="list-style-type: none"> <li>• No</li> <li>• Yes</li> </ul>	Status that indicates whether or not a partner lead is registered.
Lead Processing Activity Schedule Mode	<ul style="list-style-type: none"> <li>• Immediate</li> <li>• Schedule date</li> <li>• Repeats</li> </ul>	Scheduling options for lead processing activities.
Lead Processing Activity Progress Status	<ul style="list-style-type: none"> <li>• Completed</li> <li>• Completed with error</li> <li>• New</li> <li>• In progress</li> <li>• Scheduled</li> </ul>	Progress details indicating lead current and end processing status.
Lead Status	<ul style="list-style-type: none"> <li>• Converted</li> <li>• Qualified</li> <li>• Retired</li> <li>• Unqualified</li> </ul>	Lead status values based on specific actions performed on a lead. Used to mark the milestones in the lead life cycle.

Lead Time Frame	<ul style="list-style-type: none"> <li>• 3 months</li> <li>• 6 months</li> <li>• 9 months</li> <li>• 12 months</li> <li>• 15 months</li> <li>• 18 months</li> </ul>	Lead cycle duration that usually coincides with a typical sales cycle duration for products and services offered.
Lead Reject Reason	<ul style="list-style-type: none"> <li>• Duplicate lead</li> <li>• Failed to reach contact</li> <li>• Incorrect data</li> </ul>	Possible reasons specified for rejecting leads. Rejected leads can be reassigned or retired.
Lead Retire Reason	<ul style="list-style-type: none"> <li>• Duplicate lead</li> <li>• No purchase interest</li> </ul>	Possible reasons for retiring leads. Retired leads are considered closed leads.
Lead Process Scheduling Operators	<ul style="list-style-type: none"> <li>• Equal to</li> <li>• Greater than</li> <li>• Greater than or equal to</li> <li>• Less than</li> <li>• Less than or equal to</li> </ul>	Operators used for lead processing scheduling options.
Recommended Lead Actions Type	<ul style="list-style-type: none"> <li>• Accept leads</li> <li>• Create personal campaign</li> </ul>	Type of actions to perform on recommended leads.
Lead Processing Repeat Frequency	<ul style="list-style-type: none"> <li>• Days</li> <li>• Months</li> <li>• Weeks</li> <li>• Years</li> </ul>	The time intervals between lead processing activities.

Lookups in applications are used to represent a set of codes and their translated meanings. For example, a product team might store the values 'Y' and 'N' in a column in a table, but when displaying those values they would want to display "Yes" or "No" (or their translated equivalents) instead. Each set of related codes is identified as a lookup type. There are many different examples of these across Oracle Fusion Applications. You can add lookups and add values to the default lists.

## Sales Lead Profile Options: Explained

Profile options are configurable options that affect application operations. Values defined at the user level take precedence over those at the site level. If a value is not defined at the user level, the site level value is used.

Sales lead profile options are categorized into the following:

- Lead Assignment
- Lead Qualification and Assessment

- Partner Leads
- Lead and Recommended Lead Display in Sales Targeting
- Leads List Views

### Lead Assignment

The following table lists the profile options that affect the assignment of lead status, rank, score, resources, and territories to the lead. The values provided are used by the Sales Lead Processing Activities for scheduled assignment processing and the rank, score, and reassign actions from the lead. The Configure Assignment Manager for Lead Processing task list is a prerequisite.

Option Name	Description
Assignment Rule for Qualifying Leads	Rules to evaluate the lead and assign the lead status per rule conditions.
Assignment Rule for Ranking Leads	Rules to evaluate the lead and assign the lead rank per rule conditions.
Assignment Rule for Rule-Based Lead Assignment	Rules to evaluate the lead and assign the sale team resources per rule conditions.
Assignment Rule for Scoring Leads	Rules to evaluate the lead and assign a score per rule conditions.
Assignment Rule for Territory-Based Lead Assignment	Rules to evaluate the lead and further filter territories derived using territory based assignment per rule conditions.

### Lead Qualification and Assessment

The following table lists the profile options that affect the qualification and assessment of the lead. The Configure Assessment Reference Data for Leads task list is a prerequisite.

Option Name	Description
Lead Assessment Enabled	Enable the display of Assessments, a tab containing the sets of predefined questions and answers collected to assist in evaluating the lead.
Lead Assessment Template Default	Specify the assessment template questionnaire to default when creating a new lead assessment.
Advanced Lead Qualification Enabled	Enable advanced lead qualification by specifying the template name to display the collection of questions, possible answers, and questionnaire feedback.
Lead Qualification Template	Specify the assessment template to use for evaluating and qualifying leads.

### Partner Leads

The following table lists the profile options that affect sales partner leads.

Option Name	Description
Lead Registration Approval Administrator	Select the recipient of notifications when an approver cannot be determined, who is qualified to respond to the notification, and can modify approval configurations.

Lead Registration Expiration Date	Specify the number of days, after the lead registration creation date, used to derive the lead registration expiration date.
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### Lead and Recommended Lead Display in Sales Targeting

The following table lists the profile options that affect the number of leads and recommended leads displayed in the leads work areas and sales targeting heat maps. The four top product profiles are evaluated together to group products into a subset used as the basis for sales targeting analysis. The four top sales account profiles are evaluated together to group customer sales accounts into a subset used as the basis for sales targeting analysis.

Option Name	Description
Top Products for Sales Targeting	Specify the maximum number of retrieved products, using the top product dimension attribute minimum and maximum criteria, to display and analyze for potential leads.
Top Product Dimension Attribute for Sales Targeting	Select the product dimension attribute used to compare corresponding profile minimum and maximum values when retrieving and sorting the top products.
Top Product Dimension Attribute Maximum for Sales Targeting	Specify the upper limit of the product dimension attribute value, identified in the corresponding profile, used when retrieving the top products.
Top Product Dimension Attribute Minimum for Sales Targeting	Specify the lower limit of the product dimension attribute value, identified in the corresponding profile, used when retrieving the top products.
Top Sales Account Attribute Maximum for Sales Targeting	Specify the upper limit of the sales account attribute value, identified in the corresponding profile, used when retrieving the top sales accounts.
Top Sales Account Attribute Minimum for Sales Targeting	Specify the lower limit of the sales account attribute value, identified in the corresponding profile, used when retrieving the top sales accounts.
Top Sales Accounts Attribute for Sales Targeting	Select the sales account attribute used to compare corresponding profile minimum and maximum values when retrieving and sorting the top sales accounts.
Top Sales Accounts for Sales Targeting	Specify the maximum number of retrieved sales accounts, using the top sales account dimension attribute minimum and maximum criteria, to display and analyze for potential leads.

### Leads List Views

The following table lists the profile option for sales lead List views.

Option Name	Description
Number of Days to Query Leads	The profile value controls the default of the lead start and end date criteria values when searching leads based on creation date in the leads work areas. The values can be overridden in the search criteria user interface.





## Define Transactional Business Intelligence Configuration

### Define Transactional Business Intelligence Configuration: Highlights

Configure Oracle Transactional Business Intelligence for ad hoc reporting, review certain setup objects to be used in Transactional Business Intelligence, and manage the presentation catalog and currency type display.

#### Defining Transactional Business Intelligence Configuration

- Review details about the Transactional Business Intelligence tasks. Refer to the Oracle Fusion Transactional Business Intelligence Administrator's Guide.



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## Define Extensions for Sales

### Define Custom Enterprise Scheduler Jobs

#### Managing Job Definitions: Highlights

Oracle Enterprise Scheduler jobs are run in Oracle Fusion Applications to process data and, in some cases, to provide report output. A job definition contains the metadata that determines what the job does and what options are available to users who run the job. You can create and maintain job definitions for use in Oracle Fusion Applications.

Managing job definitions is fully described in the Oracle Fusion Applications Administrator's Guide. As you read content from that guide, note that the guide describes managing Oracle Enterprise Scheduler, including job definitions, from Oracle Enterprise Manager Fusion Applications Control. You can also access job definitions by starting in the Setup and Maintenance Overview page and searching for the Enterprise Scheduler job tasks for your applications.

#### Selecting the Appropriate Implementation Task

Each Enterprise Scheduler job definition task uses one Java EE application, which is referenced in the task name. You must use the right task because, to access the product job definition that you want to view or work on, the view objects must be contained in the application. If you do not select the right task, then the job definition will not be displayed properly or function correctly. The application name is usually the same as the product that the job definition belongs to, but not always.

- For example, the Oracle Fusion Payables Java EE application contains the Oracle Fusion Expenses product view objects. To create or maintain a job definition for use in Expenses, you select the Manage Custom Enterprise Scheduler Jobs for Payables and Related Applications task.
- In another example, the Oracle Fusion Payments product view objects are contained in both Oracle Fusion Payables and Oracle Fusion Receivables Java EE applications. You need to select the task appropriate to the job definition for Payments. Use the Manage Custom Enterprise Scheduler Jobs for Receivables and Related Applications task if the job is for receivables functionality, or the Manage Custom Enterprise Scheduler Jobs for Payables and Related Applications task if the job is for payables functionality.
- Use the task description to see the products that correspond to the Java EE application specified in the task name. For example, the description

for the Payables task lists Oracle Fusion Payables, Assets, Expenses, and Payments.

- You can view task descriptions in the help window for the task, if any, or in the generated setup task lists and tasks report from the Getting Started page.
- If you have access to the Manage Task Lists and Tasks page, you can also open the details for specific tasks to see the description.
- For general information about product and Java EE application relationships, use Oracle Enterprise Manager Fusion Applications Control (Fusion Applications Control).

See: Topology Section

### **Viewing and Creating Job Definitions**

- You can access predefined and custom job definitions.

See: Viewing Job Definitions

- You can create jobs based on Java, PL/SQL, or any other supported technology.

See: Creating a Job Definition

- If you are using the Setup and Maintenance work area, then the Enable submission from Enterprise Manager check box is available for the job definition.
  - If you do not select this check box, then the job cannot be run from Enterprise Manager.
  - If you select this check box, then you can define parameters for this job definition only in Enterprise Manager. Save the rest of your work on the job definition, and then go to Enterprise Manager if you need to define parameters.

## **Managing List of Values Sources: Highlights**

A list of values source for Oracle Enterprise Scheduler job definitions determines where a list of values comes from and what the specific values are. These lists of values are used in parameters and user properties of job definitions. For example, you can use a source of country values for a Country job parameter.

Managing list of values sources is fully described in the Oracle Fusion Applications Administrator's Guide. As you read content from that guide, note that the guide describes managing Oracle Enterprise Scheduler, including list of values sources, from Oracle Enterprise Manager Fusion Applications Control. You can also access list of values sources by starting in the Setup and Maintenance Overview page and searching for Enterprise Scheduler job tasks.

### **Registering and Searching for List of Values Sources**

- Create list of values sources to register them for use in job definitions.

See: Registering Sources for Lists of Values

- Search for list of values sources to edit or delete, or to make sure a particular source does not already exist before you create it.

See: Searching for List of Value Sources

## Customization and Sandboxes

### Customizing Pages Using Oracle Composer: Highlights

You can customize dashboards and some work areas, where available, for all or some users based on a selected customization layer, for example only for users in a specific country or with a specific job role. When you select to customize a page from the **Administration** menu in the global area, you invoke Oracle Composer, which enables the customization. The Administration menu is only available if you have appropriate roles.

From the same menu, you can also:

- Customize the global area.
- Access the Customization Manager, which displays a list of components in the current page and details about the layers in which each component is customized.
- Access sandboxes from the Administration menu, to make customizations to a runtime use session before deploying your changes to the mainline.

Customizing pages using Oracle Composer, the Customization Manager, and sandboxes are described in the Oracle Fusion Applications Extensibility Guide.

#### Editing Pages

- Customizations that you can make to existing pages include adding content and changing layout.  
See: Editing a Page in Oracle Composer
- You can also update display and other options for specific components within the page.  
See: Editing Component Properties in Oracle Composer

#### Global Page Template

- Customize the global area at the site layer.  
See: Editing the UI Shell Template Used by All Pages

#### Customization Manager

- Use Customization Manager to analyze and diagnose customization metadata, and to perform customization related tasks that cannot be done in the user interface, for example to revert customizations to a previous version. You can also do direct customization by manipulating the metadata and uploading it back.  
See: Using Customization Manager to Manage Runtime Customizations

#### Sandboxes

- Create or select an appropriate sandbox, and set it as active to capture your customizations using Oracle Composer. When you are ready, you publish the sandbox to make your changes available to users.  
See: Using the Sandbox Manager

## Customizing Oracle Fusion CRM Applications Using Oracle Fusion CRM Application Composer: Explained

The Oracle Fusion CRM Application Composer provides a series of task flows which let you customize and extend an Oracle Fusion CRM application according to the needs of your users. For example, you can create fields for an existing standard object, and expose those new fields on the object's work area. Or, create a brand new custom object and related fields, then create a work area

where that object and its fields are exposed to users. The task flows available to you are dependent upon the CRM application that you are customizing. This topic provides an overview of which CRM Application Composer task flows are available for use in each CRM application.

This topic addresses extensibility for these CRM applications:

- Oracle Fusion Common CRM
- Oracle Fusion Customer Center
- Oracle Fusion Marketing
- Oracle Fusion Sales
- Oracle Fusion Sales Catalog

You can also refer to the product-specific implementation guides to learn more about how a particular application works with the Application Composer.

### Oracle Fusion Common CRM

Using the Common application container in the Application Composer, you can complete the tasks listed in the tables below.

This includes Master Data Management (MDM) and Common Party User Interface (CPUI) Objects.

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#### Note

You cannot create custom objects using the Common application container in the Application Composer.

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Customization Task Flow	Task	Interaction	Note
Feature: Custom Objects			
Create or Edit Top Level Object			
Create or Edit Child Object for Standard and Custom Parent Object	No	No	No
Create or Edit Text Attribute	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes
Create or Edit Date-time Attribute	No	Yes	Yes
Create or Edit Long-text Attribute	No	Yes	Yes
Create or Edit Check-box Attribute	No	Yes	Yes
Create or Edit Percentage Attribute	No	Yes	Yes
Create or Edit Currency Attribute	No	Yes	Yes
Create or Edit Fixed Choice List Attribute	No	Yes	Yes
Create or Edit Dynamic Choice List Attribute	No	Yes	Yes

Create or Edit Formula Attribute	No	Yes	Yes
Create Indexed Attribute	No	Yes	Yes
Feature: Actions and Links (Summary and Details page)			
Create or Edit Action with Script (using groovy)	No	Yes	Yes
Create or Edit Action with URL	No	Yes	Yes
Create or Edit Links with URL	No	Yes	Yes
Feature: Server Scripts			
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	No	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	No	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	No	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	No	Yes	Yes
Feature: Saved Searches			
Create or Edit Saved Search for a Parent Object	No	Yes	Yes
Feature: Pages and Work Areas			
Create Work Area for a Custom Top Level Object			
Add, Edit Custom or Standard fields to Local Search	No	No	No
Add, Edit Custom or Standard fields to Regional Search	No	No	No
Add or Edit Custom or Standard fields to Summary Table	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Creation Page	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Summary Form	Yes	Yes	Yes

Add Actions or Links to Summary Table	No	Yes	Yes
Add Actions or Links to Summary Form	No	Yes	Yes
Create or Edit Picker	No	No	No
Create or Edit Regional Pane	No	No	No
Create or Edit Tree Nodes	No	No	No
Create or Edit Child or Related Object Sub tab	No	No	No
Create or Edit Context Link Sub tab	No	No	No
Create or Edit Common Component Sub tab	No	No	No
Create or Edit Web Content Sub tab	No	No	No
Create Mobile Pages	No	No	No
Create Tablet Pages	No	No	No
Feature: Web Services			
Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	No	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	No	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	No	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	No	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	No	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	No	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	No	Yes	Yes
Find and get a record Standard or Custom object having custom attribute	No	Yes	Yes
Create an action script that triggers a Web Service	No	Yes	Yes
Feature: Object Workflows			
Create or Edit Object workflow	No	Yes	Yes
Create or Edit or Delete Field Updates	No	Yes	Yes
Create or Edit or Delete Email Notification	No	Yes	Yes
Create or Edit or Delete Outbound Message	No	Yes	Yes
Create or Edit or Delete Business-process Flow	No	Yes	Yes
Create or Edit or Delete Task Creation	No	No	No
Execute Object Workflow for all actions	No	Yes	Yes
Feature: Email Templates			
Create or Edit or Delete Email Templates	No	Yes	Yes
Feature: Relationships			
Create or Edit a Relationship	No	No	No

Table (continued from above): Master Data Management (MDM) and Common Party User Interface (CPUI) Objects

Feature	Trading Community Organization Contact	Trading Community Resource Profile	Trading Community Organization Profile	Trading Community Person Profile	Trading Community Relationship SDO	Trading Community Address
Feature: Custom Objects						
Create or Edit Top Level Object						
Create or Edit Child Object for Standard and Custom Parent Object	Yes	Yes	No	No	No	Yes
Feature: Fields						
Create or Edit Text Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Fixed Choice List Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	Yes	Yes	Yes	Yes	Yes

Create or Edit Formula Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create Indexed Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Actions and Links (Summary or Details pages)						
Create or Edit Action with Script (using groovy)	Yes	Yes	No	No	Yes	Yes
Create or Edit Action with URL	Yes	Yes	No	No	Yes	Yes
Create or Edit Links with URL	Yes	Yes	No	No	Yes	Yes
Feature: Server Scripts						
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Saved Searches						

Create or Edit Saved Search for a Parent Object	No	Yes	No	No	No	No
Feature: Security						
Create, Update or Delete roles for Custom Object						
Create, Update or Delete permissions for Custom Object						
View APM roles defined across the applications for Custom Object						
View or Edit policies defined for a role (Application Specific Custom Objects)						
Feature: Pages and Work Areas						
Create Work Area for a Custom Top Level Object						
Add, Edit Custom or Standard fields to Local Search	No	Yes	No	No	No	No
Add, Edit Custom or Standard fields to Regional Search	No	No	No	No	No	No
Add, Edit Custom or Standard fields to Summary Table	Yes	Yes	No	No	No	No

Add or Edit Custom or Standard fields to Creation Page	Yes	Yes	Yes	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Summary Form	Yes	Yes	Yes	Yes	Yes	Yes
Add Actions or Links to Summary Table	Yes	Yes	No	No	Yes	Yes
Add Actions or Links to Summary Form	Yes	Yes	Yes	Yes	No	No
Create or Edit Picker	No	No	No	No	No	No
Create or Edit Regional Pane	No	No	No	No	No	No
Create or Edit Tree Nodes	No	No	No	No	No	No
Create or Edit Child or Related Object Sub tab	No	Yes	No	No	No	No
Create or Edit Context Link Sub tab	No	Yes	No	No	No	No
Create or Edit Common Component Sub tab	No	No	No	No	No	No
Create or Edit Web Content Sub tab	No	Yes	No	No	No	No
Create Mobile Pages	No	No	No	No	No	No
Create Tablet Pages	No	No	No	No	No	No
Feature: Web Services						

Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	No	Yes	Yes	Yes	Yes	Yes
Find and get a record Standard or Custom object having custom attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create an action script that triggers a Web Service	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Custom Subject Areas						

Create, Edit or Save and Publish a Subject Area	Yes	Yes	Yes	Yes	Yes	Yes
Edit or Save republish a Subject Area	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Object Workflows						
Create or Edit Object workflow	Yes	Yes	No	No	Yes	Yes
Create or Edit or Delete Field Updates	Yes	Yes	No	No	Yes	Yes
Create or Edit or Delete Email Notification	Yes	Yes	No	No	Yes	Yes
Create or Edit or Delete Outbound Message	Yes	Yes	No	No	Yes	Yes
Create or Edit or Delete Business-process Flow	Yes	Yes	No	No	Yes	Yes
Create or Edit or Delete Task Creation	No	No	No	No	Yes	Yes
Execute Object Workflow for all actions	Yes	Yes	No	No	Yes	Yes
Feature: Email Templates						
Create or Edit or Delete Email Templates	Yes	Yes	No	No	Yes	Yes
Feature: Relationships						
Create or Edit a Relationship	Yes	Yes	No	No	No	Yes

### Oracle Fusion Customer Center

Using the Customer Center application container in the Application Composer, you can:

- Create custom objects

- Complete the tasks listed in the table below for standard objects.

Feature	Custom Object	Sales Account Resource	Sales Account
Create or Edit Top Level Object	Yes		
Create or Edit Child Object for Standard and Custom Parent Object	Yes	No	Yes
Feature: Fields			
Create or Edit Text Attribute	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	Yes	Yes
Create or Edit Fixed Choice List Attribute	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	Yes	Yes
Create or Edit Formula Attribute	Yes	Yes	Yes
Create Indexed Attribute	Yes	Yes	Yes
Feature: Actions and Links (Summary or Details pages)			
Create or Edit Action with Script (using groovy)	Yes	Yes	Yes
Create or Edit Action with URL	Yes	Yes	Yes
Create or Edit Links with URL	Yes	Yes	Yes
Feature: Server Scripts			
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes

Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	Yes	Yes	Yes
Feature: Saved Searches	Yes	Yes	Yes
Create or Edit Saved Search for a Parent Object			
Feature: Pages and Work Areas			
Add, Edit Custom or Standard fields to Local Search	Yes	No	No
Add, Edit Custom or Standard fields to Regional Search	Yes	No	No
Add or Edit Custom or Standard fields to Summary Table	Yes	No	No
Add or Edit Custom or Standard fields to Creation Page	Yes	No	No
Add or Edit Custom or Standard fields to Summary Form	Yes	No	Yes
Add Actions or Links to Summary Table	Yes	No	Yes
Add Actions or Links to Summary Form		No	
Create or Edit Picker		No	
Create or Edit Regional Pane		No	Yes
Create or Edit Tree Nodes	No	No	Yes
Create or Edit Child or Related Object Sub tab	Yes	No	
Create or Edit Context Link Sub tab	Yes	No	
Create or Edit Common Component Sub tab	Yes	No	
Create or Edit Web Content Sub tab	Yes	No	
Create Mobile Pages		No	
Create Tablet Pages		No	

Feature: Web Services			
Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes	No	Yes
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	Yes	No	Yes

Find and get a record Standard or Custom object having custom attribute	Yes	No	Yes
Create an action script that triggers a Web Service			
Feature: Custom Subject Areas			
Create or Edit or Save and Publish a Subject Area		No	
Edit or Save republish a Subject Area		No	
Feature: Object Workflows			
Create or Edit Object workflow	Yes	Yes	Yes
Create or Edit or Delete Field Updates	Yes	Yes	Yes
Create or Edit or Delete Email Notification	Yes	Yes	Yes
Create or Edit or Delete Outbound Message	Yes	Yes	Yes
Create or Edit or Delete Business-process Flow	Yes	Yes	Yes
Create or Edit or Delete Task Creation	Yes	Yes	Yes
Execute Object Workflow for all actions	Yes	Yes	Yes
Feature: Email Templates			
Create or Edit or Delete Email Templates	Yes	Yes	Yes
Feature: Relationships			
Create or Edit a Relationship	Yes	No	Yes

### Oracle Fusion Marketing

Using the Marketing application container in the Application Composer, you can:

- Create custom objects
- Complete the tasks listed in the tables below for standard objects.

Customization Task Flow	Custom Object	Sales Lead Version 2	Marketing Campaign	Marketing Budget Version 2	Marketing List	Marketing Treatment
Feature: Custom Objects						

Create or Edit Top Level Object	Yes					
Create or Edit Child Object for Standard and Custom Parent Object	Yes	Yes	No	Yes	No	No
Feature: Fields						
Create or Edit Text Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Fixed Choice List Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Formula Attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create Indexed Attribute	Yes	Yes	Yes	Yes	Yes	Yes

Feature: Actions and Links (Summary or Details pages)						
Create or Edit Action with Script (using groovy)	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Action with URL	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Links with URL	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Server Scripts						
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Saved Searches						
Create or Edit Saved Search for a Parent Object	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Pages and Work Areas						

Create Work Area for a Custom Top Level Object	Yes					
Add, Edit Custom or Standard fields to Local Search	Yes	No	No	No	No	No
Add, Edit Custom or Standard fields to Regional Search	Yes	No	No	No	No	No
Add or Edit Custom or Standard fields to Summary Table	Yes	Yes	Yes	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Creation Page	Yes	Yes	Yes	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Summary Form	Yes	Yes	Yes	Yes	Yes	Yes
Add Actions or Links to Summary Table	Yes	Yes	Yes	Yes	Yes	Yes
Add Actions or Links to Summary Form	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Picker	Yes	No	No	No	No	No
Create or Edit Regional Pane	Yes	No	No	No	No	No
Create or Edit Tree Nodes	Yes	No	No	No	No	No
Create or Edit Child or Related Object Sub tab	Yes	Yes	No	Yes	No	No

Create or Edit Context Link Sub tab	Yes	Yes	No	Yes	No	No
Create or Edit Common Component Sub tab	No	No	No	No	No	No
Create or Edit Web Content Sub tab	Yes	Yes	No	Yes	No	No
Create Mobile Pages	No	No	No	No	No	No
Create Tablet Pages	No	No	No	No	No	No
Feature: Web Services						
Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	Yes	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	Yes	Yes	Yes	Yes	Yes	Yes
Find and get a record Standard or Custom object having custom attribute	Yes	Yes	Yes	Yes	Yes	Yes
Create an action script that triggers a Web Service	No	No	No	No	No	No
Feature : Custom Subject Areas						
Create or Edit or Save and Publish a Subject Area	Yes	Yes	Yes	No	Yes	Yes
Edit or Save republish a Subject Area	Yes	Yes	Yes	No	Yes	Yes
Feature: Object Workflows						
Create or Edit Object workflow	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit or Delete Field Updates	Yes	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Email Notification	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit or Delete Outbound Message	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit or Delete Business-process Flow	Yes	Yes	Yes	Yes	Yes	Yes

Create or Edit or Delete Task Creation	Yes	Yes	Yes	No	No	No
Execute Object Workflow for all actions	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Email Templates						
Create or Edit or Delete Email Templates	Yes	Yes	Yes	Yes	Yes	Yes
Feature: Relationships						
Create or Edit a Relationship	Yes	Yes	Yes	Yes	Yes	Yes

Table (continued from above): Oracle Fusion Marketing Objects

Customization Task Flow	Marketing Event Activity	Marketing Advertisement	Marketing Claim Version 2	Marketing Claim Settlement Version 2	Marketing Budget Entry Version 2	Marketing Fund Request Version 2	Marketing Response
Feature: Custom Objects							
Create or Edit Top Level Object							
Create or Edit Child Object for Standard and Custom Parent Object	No	No	Yes	No	No	Yes	Yes
Feature: Fields							
Create or Edit Text Attribute	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Create or Edit Date-time Attribute	Yes						
Create or Edit Long-text Attribute	Yes						
Create or Edit Check-box Attribute	Yes						
Create or Edit Percentage Attribute	Yes						
Create or Edit Currency Attribute	Yes						
Create or Edit Fixed Choice List Attribute	Yes						
Create or Edit Dynamic Choice List Attribute	Yes						
Create or Edit Formula Attribute	Yes						
Create Indexed Attribute	Yes						
Feature: Actions and Links (Summary or Details pages)							
Create or Edit Action with Script (using groovy)	Yes						
Create or Edit Action with URL	Yes						
Create or Edit Links with URL	Yes						

Feature: Server Scripts							
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes						
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes						
Create, Edit or Delete Triggers using groovy scripts	Yes						
Create, Edit or Delete Object Functions using groovy scripts	Yes						
Feature: Saved Searches							
Create or Edit Saved Search for a Parent Object	No	No	Yes	No	Yes	Yes	Yes
Feature: Pages and Work Areas							
Create Work Area for a Custom Top Level Object							

Add, Edit Custom or Standard fields to Local Search	No						
Add, Edit Custom or Standard fields to Regional Search	No						
Add or Edit Custom or Standard fields to Summary Table	No	Yes	Yes	No	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Creation Page	No	No	Yes	Yes	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Summary Form	Yes						
Add Actions or Links to Summary Table	No	No	Yes	No	Yes	Yes	Yes
Add Actions or Links to Summary Form	No	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Picker	No						
Create or Edit Regional Pane	No						
Create or Edit Tree Nodes	No						
Create or Edit Child or Related Object Sub tab	No	No	Yes	No	No	Yes	Yes

Create or Edit Context Link Sub tab	No	No	Yes	No	No	Yes	Yes
Create or Edit Common Component Sub tab	No	No	No	No	No	No	No
Create or Edit Web Content Sub tab	No	No	Yes	No	No	Yes	Yes
Create Mobile Pages	No	No	No	No	No	No	No
Create Tablet Pages	No	No	No	No	No	No	No
Feature: Web Services							
Create, Update and Delete a record in Standard or Custom object having custom text attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	No	No	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	No	No	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	No	No	Yes	Yes	Yes	Yes	Yes
Find and get a record Standard or Custom object having custom attribute	No	No	Yes	Yes	Yes	Yes	Yes
Create an action script that triggers a Web Service	No	No	No	No	No	No	No
Feature : Custom Subject Areas							
Create or Edit or Save and Publish a Subject Area	No	No	No	No	No	No	Yes
Edit or Save republish a Subject Area	No	No	No	No	No	No	Yes
Feature: Object Workflows							

Create or Edit Object workflow	Yes						
Create or Edit or Delete Field Updates	Yes	Yes	Yes	Yes	No	Yes	Yes
Create, Edit or Delete Email Notification	Yes						
Create or Edit or Delete Outbound Message	Yes						
Create or Edit or Delete Business-process Flow	Yes						
Create or Edit or Delete Task Creation	No						
Execute Object Workflow for all actions	Yes						
Feature: Email Templates							
Create or Edit or Delete Email Templates	Yes						
Feature: Relationship							
Create or Edit a Relationship	Yes						

Table (continued from above): Oracle Fusion Marketing Objects

Customization Task Flow	Sales Lead Contacts	Sales Lead Resources	Sales Campaign
Feature: Custom Objects			
Create or Edit Top Level Object			

Create or Edit Child Object for Standard and Custom Parent Object	No	No	No
Feature: Fields			
Create or Edit Text Attribute	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	Yes	Yes
Create or Edit Fixed Choice List Attribute	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	Yes	Yes
Create or Edit Formula Attribute	Yes	Yes	Yes
Create Indexed Attribute	Yes	Yes	Yes
Feature: Actions and Links (Summary or Details pages)			
Create or Edit Action with Script (using groovy)	Yes	Yes	Yes
Create or Edit Action with URL	Yes	Yes	Yes
Create or Edit Links with URL	Yes	Yes	Yes
Feature: Server Scripts			
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	Yes	Yes

Create, Edit or Delete Object Functions using groovy scripts	Yes	Yes	Yes
Feature: Saved Searches			
Create or Edit Saved Search for a Parent Object	No	No	Yes
Feature: Pages and Work Areas			
Create Work Area for a Custom Top Level Object			
Add, Edit Custom or Standard fields to Local Search	No	No	No
Add, Edit Custom or Standard fields to Regional Search	No	No	No
Add or Edit Custom or Standard fields to Summary Table	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Creation Page	No	No	Yes
Add or Edit Custom or Standard fields to Summary Form	No	No	Yes
Add Actions or Links to Summary Table	Yes	No	No
Add Actions or Links to Summary Form	No	No	No
Create or Edit Picker	No	No	No
Create or Edit Regional Pane	No	No	No
Create or Edit Tree Nodes	No	No	No
Create or Edit Child or Related Object Sub tab	No	No	No
Create or Edit Context Link Sub tab	No	No	No
Create or Edit Common Component Sub tab	No	No	No
Create or Edit Web Content Sub tab	No	No	No
Create Mobile Pages	No	No	No
Create Tablet Pages	No	No	No
Feature: Web Services			

Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes	Yes	No
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	Yes	Yes	No

Find and get a record Standard or Custom object having custom attribute	Yes	Yes	No
Create an action script that triggers a Web Service	No	No	No
Feature : Custom Subject Areas			
Create or Edit or Save and Publish a Subject Area	No	No	No
Edit or Save republish a Subject Area	No	No	No
Feature: Object Workflows			
Create or Edit Object workflow	No	Yes	No
Create or Edit or Delete Field Updates	No	Yes	No
Create, Edit or Delete Email Notification	No	Yes	No
Create or Edit or Delete Outbound Message	No	Yes	No
Create or Edit or Delete Business-process Flow	No	Yes	No
Create or Edit or Delete Task Creation	No	No	No
Execute Object Workflow for all actions	No	Yes	No
Feature: Email Templates			
Create or Edit or Delete Email Templates	No	Yes	No
Feature: Relationships			
Create or Edit a Relationship	No	No	Yes

### Oracle Fusion Sales

Using the Sales application container in the Application Composer, you can:

- Create custom objects
- Complete the tasks listed in the tables below for standard objects.

Customization Task Flow	Custom Object	Opportunity	Sales Competitor	Sales Reference Customer SDO	Opportunity Contact
Feature: Custom Objects					
Create or Edit Top Level Object	Yes				

Create or Edit Child Object for Standard and Custom Parent Object	Yes	Yes	Yes	Yes	No
Feature: Fields					
Create or Edit Text Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	Yes	No	No	No
Create or Edit Fixed Choice List Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	Yes	Yes	Yes	Yes
Create or Edit Formula Attribute	Yes	Yes	Yes	Yes	Yes
Create Indexed Attribute	Yes	Yes	Yes	Yes	Yes
Feature: Actions and Links (Summary or Details page)					
Create or Edit Action with Script (using groovy)	Yes	Yes	Yes	Yes	Yes
Create or Edit Action with URL	Yes	Yes	Yes	Yes	Yes

Create or Edit Links with URL	Yes	Yes	Yes	Yes	Yes
Feature: Server Scripts					
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	Yes	Yes	Yes	Yes	Yes
Feature: Saved Searches					
Create or Edit Saved Search for a Parent Object	Yes	Yes	Yes	Yes	No
Feature: Security					
Create, Update or Delete roles for Custom Object	Yes				
Create, Update or Delete permissions for Custom Object	Yes				
View APM roles defined across the applications for Custom Object	Yes				
View or Edit policies defined for a role (Application Specific Custom Objects)	Yes				
Feature: Pages and Work Areas					

Create Work Area for a Custom Top Level Object	Yes				
Add, Edit Custom or Standard fields to Local Search	Yes	No	No	No	No
Add, Edit Custom or Standard fields to Regional Search	Yes	No	No	No	No
Add or Edit Custom or Standard fields to Summary Table	Yes	Yes	Yes	Yes	No
Add or Edit Custom or Standard fields to Creation Page	Yes	Yes	Yes	Yes	No
Add or Edit Custom or Standard fields to Summary Form	Yes	Yes	Yes	Yes	No
Add Actions or Links to Summary Table	Yes	Yes	Yes	Yes	Yes
Add Actions or Links to Summary Form	Yes	Yes	Yes	Yes	No
Create or Edit Picker	Yes	No	No	No	No
Create or Edit Regional Pane	Yes	No	No	No	No
Create or Edit Tree Nodes	Yes	No	No	No	No
Create or Edit Child or Related Object Sub tab	Yes	Yes	Yes	Yes	No
Create or Edit Context Link Sub tab	Yes	Yes	Yes	Yes	No
Create or Edit Common Component Sub tab	Yes	No	No	No	No
Create or Edit Web Content Sub tab	Yes	Yes	Yes	Yes	No

Create Mobile Pages	Yes	Yes	Yes	Yes	No
Create Tablet Pages	Yes	Yes	No	No	No
Feature: Web Services					
Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes	Yes	Yes	Yes	Yes

Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes	Yes	Yes	Yes	Yes
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	Yes	Yes	Yes	Yes	Yes
Find and get a record Standard or Custom object having custom attribute	Yes	Yes	Yes	Yes	Yes
Create an action script that triggers a Web Service	No	No	No	No	No
Feature : Custom Subject Areas					
Create, Edit or Save and Publish a Subject Area	Yes	Yes	Yes	No	No
Edit or Save republish a Subject Area	Yes	Yes	Yes	No	No
Feature: Object Workflows					

Create or Edit Object workflow	Yes	Yes	Yes	Yes	No
Create, Edit or Delete Field Updates	Yes	Yes	Yes	Yes	No
Create, Edit or Delete Email Notification	Yes	Yes	Yes	Yes	No
Create, Edit or Delete Outbound Message	Yes	Yes	Yes	Yes	No
Create, Edit or Delete Business-process Flow	Yes	Yes	Yes	Yes	No
Create, Edit or Delete Task Creation	Yes	Yes	Yes	Yes	No
Execute Object Workflow for all actions	Yes	Yes	Yes	Yes	No
Feature: Email Templates					
Create, Edit or Delete Email Templates	Yes	Yes	Yes	Yes	No
Feature: Relationships					
Create or Edit a Relationship	Yes	Yes	Yes	Yes	No

Table (continued from above): Oracle Fusion Sales Objects

Customizati Task Flow	Opportunity Revenue	Forecast Territory Details	Forecast Item	Partner	Programs	Program Objective Details	Program Benefits Details
Feature: Custom Objects							
Create or Edit Top Level Object							
Create or Edit Child Object for Standard and Custom Parent Object	No	No	No	Yes	Yes	No	No

Feature: Fields							
Create or Edit Text Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Number Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Date Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Date-time Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Long-text Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Check-box Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Percentage Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Currency Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Fixed Choice List Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Dynamic Choice List Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Formula Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes
Create Indexed Attribute	Yes	No	Yes	Yes	Yes	Yes	Yes

Feature: Actions and Links (Summary or Details page)							
Create or Edit Action with Script (using groovy)	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Action with URL	Yes	No	Yes	Yes	Yes	Yes	Yes
Create or Edit Links with URL	Yes	No	Yes	Yes	Yes	Yes	Yes
Feature: Server Scripts							
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes	No	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes	No	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes	No	Yes	Yes	Yes	Yes	Yes
Create, Edit or Delete Object Functions using groovy scripts	Yes	No	Yes	Yes	Yes	Yes	Yes
Feature: Saved Searches							

Create or Edit Saved Search for a Parent Object	No	No	No	Yes	Yes	No	No
Feature: Security							
Create, Update or Delete roles for Custom Object							
Create, Update or Delete permissions for Custom Object							
View APM roles defined across the applications for Custom Object							
View or Edit policies defined for a role (Application Specific Custom Objects)							
Feature: Pages and Work Areas							
Create Work Area for a Custom Top Level Object							
Add, Edit Custom or Standard fields to Local Search	No	No	No	Yes	Yes	No	No
Add, Edit Custom or Standard fields to Regional Search	No	No	No	No	No	No	No

Add or Edit Custom or Standard fields to Summary Table	Yes	No	Yes	Yes	Yes	Yes	Yes
Add or Edit Custom or Standard fields to Creation Page	No	No	No	Yes	Yes	No	No
Add or Edit Custom or Standard fields to Summary Form	No	No	No	Yes	No	No	No
Add Actions or Links to Summary Table	Yes	No	No	No	Yes	Yes	Yes
Add Actions or Links to Summary Form	No	No	No	No	Yes	No	No
Create or Edit Picker	No	No	No	No	No	No	No
Create or Edit Regional Pane	No	No	No	No	No	No	No
Create or Edit Tree Nodes	No	No	No	No	No	No	No
Create or Edit Child or Related Object Sub tab	No	No	No	Yes	Yes	No	No
Create or Edit Context Link Sub tab	No	No	No	No	No	No	No
Create or Edit Common Component Sub tab	No	No	No	No	No	No	No

Create or Edit Web Content Sub tab	No	No	No	No	No	No	No
Create Mobile Pages	No	No	No	No	No	No	No
Create Tablet Pages	No	No	No	No	No	No	No
Feature: Web Services							
Create, Update and Delete a record in Standard or Custom object having custom text attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	Yes		Yes	No	No	No	No

Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	Yes		Yes	No	No	No	No
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	Yes		Yes	No	No	No	No

Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	Yes		Yes	No	No	No	No
Find and get a record Standard or Custom object having custom attribute	Yes		Yes	No	Yes	No	No
Create an action script that triggers a Web Service	No		Yes	No	No	No	No
Feature : Custom Subject Areas							
Create, Edit or Save and Publish a Subject Area	No			No	Yes	No	No
Edit or Save republish a Subject Area	No			No	Yes	No	No
Feature: Object Workflows							
Create or Edit Object workflow	No	No	No	Yes	Yes	No	No
Create, Edit or Delete Field Updates	No	No	No	Yes	Yes	No	No
Create, Edit or Delete Email Notification	No	No	No	Yes	Yes	No	No

Create, Edit or Delete Outbound Message	No	No	No	Yes	Yes	No	No
Create, Edit or Delete Business-process Flow	No	No	No	Yes	Yes	No	No
Create, Edit or Delete Task Creation	No	No	No	No	No	No	No
Execute Object Workflow for all actions	No	No	No	Yes	Yes	No	No
Feature: Email Templates							
Create, Edit or Delete Email Templates	No	No	No	Yes	Yes	No	No
Feature: Relationship							
Create or Edit a Relationship	No	No	No	Yes	Yes	No	No

### Oracle Fusion Sales Catalog

Using the Oracle Fusion Sales Catalog container in the Application Composer, you can complete the tasks listed in the table below.

#### Note

You cannot create custom objects using the Oracle Fusion Sales Catalog container in the Application Composer.

Feature	Product Group Details
Create or Edit Top Level Object	
Create or Edit Child Object for Standard and Custom Parent Object	No
Feature: Fields	
Create or Edit Text Attribute	Yes
Create or Edit Number Attribute	Yes
Create or Edit Date Attribute	Yes
Create or Edit Date-time Attribute	Yes
Create or Edit Long-text Attribute	Yes
Create or Edit Check-box Attribute	Yes
Create or Edit Percentage Attribute	Yes

Create or Edit Currency Attribute	No
Create or Edit Fixed Choice List Attribute	Yes
Create or Edit Dynamic Choice List Attribute	No
Create or Edit Formula Attribute	Yes
Create Indexed Attribute	Yes
Feature: Actions and Links (Summary or Details pages)	
Create or Edit Action with Script (using groovy)	Yes
Create or Edit Action with URL	Yes
Create or Edit Links with URL	Yes
Feature: Server Scripts	
Create, Edit or Delete Object Rules (Validation Rules) using groovy scripts	Yes
Create, Edit or Delete Field Rules (Validation Rules) using groovy scripts	Yes
Create, Edit or Delete Triggers using groovy scripts	Yes
Create, Edit or Delete Object Functions using groovy scripts	
Feature: Saved Searches	
Create or Edit Saved Search for a Parent Object	No
Feature: Pages and Work Areas	
Create Work Area for a Custom Top Level Object	
Add, Edit Custom or Standard fields to Local Search	No
Add, Edit Custom or Standard fields to Regional Search	No
Add or Edit Custom or Standard fields to Summary Table	No
Add or Edit Custom or Standard fields to Creation Page	No
Add or Edit Custom or Standard fields to Summary Form	Yes
Add Actions or Links to Summary Table	No
Add Actions or Links to Summary Form	No
Create or Edit Picker	No
Create or Edit Regional Pane	No
Create or Edit Tree Nodes	No
Create or Edit Child or Related Object Sub tab	No
Create or Edit Context Link Sub tab	No
Create or Edit Common Component Sub tab	No
Create or Edit Web Content Sub tab	No
Create Mobile Pages	No
Create Tablet Pages	No
Feature: Web Services	

Create, Update and Delete a record in Standard or Custom object having custom text attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Number attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Date attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Date-time attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Percentage attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Check-box attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Fixed Choice List attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Dynamic Choice List attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Long Text attribute	No
Create, Update and Delete a record in Standard or Custom object having custom Currency attribute	No
Find and get a record Standard or Custom object having custom attribute	No
Create an action script that triggers a Web Service	No
Feature: Custom Subject Areas	
Create, Edit or Save and Publish a Subject Area	No
Edit, Save republish a Subject Area	No
Feature: Object Workflows	No
Create or Edit Object workflow	No
Create, Edit or Delete Field Updates	No
Create, Edit or Delete Email Notification	No
Create, Edit or Delete Outbound Message	No
Create, Edit or Delete Business-process Flow	No
Create, Edit or Delete Task Creation	No
Execute Object Workflow for all actions	No
Feature: Email Templates	
Create, Edit or Delete Email Templates	No
Feature: Relationships	
Create or Edit a Relationship	No

## Customizing Oracle Fusion CRM Pages Using Oracle Composer: Explained

You can customize most pages in Oracle Fusion CRM using Oracle Composer. To access Oracle Composer, navigate to one of the pages available for customization

and select to customize the page from the **Administration** menu in the global area.

### Available Customization Options

When you select to customize a page from the **Administration** menu in the global area, you launch Oracle Composer.

The customizations that you make are applied based on your layer selection:

- Site  
Your customizations are visible to all users.
- Job Role  
Your customizations are visible to users who have the selected job role.
- External or Internal  
Depending on your selection, your customizations are visible to either external or internal users. External users could be your partners or anonymous users. Internal users could be your employees.

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#### Note

Users can customize their own dashboard pages by selecting Edit Current Page from the Personalization menu. Such customizations are visible only to the user who made the change.

---

### Available Customization Tasks

Oracle Composer uses two different modes of Design View. The first mode, Design View: Standard mode, is selected by default in all CRM pages when opening a page with Oracle Composer with the Design tab selected. The second mode, Design View: Direct Selection mode, is activated when you click the Select tab for the UI page you want to customize.

With the Design View: Direct Selection mode, you can select and edit UI components such as form fields and table columns. In Direct Selection mode, selectable UI components become apparent when you move your cursor over the UI component. Selectable UI components are highlighted and can be edited. In CRM, Direct Selection mode is available when you customize pages, but not when you personalize a dashboard page.

Examples of UI components exposed in Design View: Direct Selection mode are:

Fields (for example an input text field)

- Show component (boolean attribute)
- Read only (boolean attribute)
- Required (boolean attribute)
- Label

UI container (for example, form container)

- Show or hide child components (for example, fields in the form)
- Reorder child components (for example, reorder fields in a form)

UI components can be protected from update to preserve the product business logic (for example, a field is read only or not based on a security privilege)

already defined in the application). If protected from update, the UI components are grayed out and cannot be changed.

This table describes how you can use each mode of Oracle Composer to customize dashboard pages and other select pages\*.

Customization Tasks	Design View - Standard mode	Design View - Direct Selection mode
Add content (Business Intelligence reports, CRM portlets such as Calendar)	Yes	No
Delete region	Yes	No
Move region	Yes	No
Change page layout (for example, change a two column layout to three column layout)	Yes	No

\*Examples of such pages are: Partner Public Profile page, Partner Landing page, Partner Registration page, Opportunity Overview, Customer Snapshot node, and Overview Analysis tab.

This table describes how you can use each mode of Oracle Composer to customize transactional pages (all other non-dashboard pages).

Customization Tasks	Design View - Standard mode	Design View - Direct Selection mode
Default region state (open or close)	Yes	No
Manage saved searches (create and edit)	Yes	No
Hide or show field	No	Yes
Change field label	No	Yes
Make field required or not	No	Yes
Make field read-only or updateable	No	Yes
Reorder fields in a form	No	Yes
Reorder table columns	Yes	Yes
Hide or show table columns	Yes (end users can optionally display columns at runtime)	Yes (end users cannot display columns at runtime)
Set table column width with the mouse	Yes	No
Set table column width and minimum width in percent or pixels	No	Yes
Make column sortable or not	No	Yes

### Customization Privileges Required

The following are examples of job roles that must be assigned to you before you can make customizations using Oracle Composer:

Application	Duty Role	Job Role
CDH	Master Data Management Application Administrator	Master Data Management Application Administrator
Sales Catalog	Sales Catalog Administrator Duty	Sales Catalog Administrator
Sales	Sales Administrator Duty	Sales Administrator
Marketing	Marketing Operations Manager Duty	Marketing Operations Manager
PRM	Channel Administrator Duty	Channel Administrator
PRM	Channel Partner Portal Administrator Duty	Channel Partner Portal Administrator

Contact your security administrator for details.

## Customizing Oracle Fusion Customer Center Pages: Explained

You can customize a variety of pages and regions in Oracle Fusion Customer Center using the Oracle Fusion CRM Application Composer. The Application Composer lets you create custom fields and objects, which you then add for display in the runtime Customer Center application. To access the Application Composer, select **Application Composer** from the Navigator menu, under the Tools category.

### Customizing Oracle Fusion Customer Center Pages Using the Application Composer

In general, every top-level CRM object has a work area, which includes an overview page, a creation page, and a details page. When you make changes to the object, those changes can be reflected in the object's associated work area. Customer Center, however, is unique in that its user interface pages do not include the traditional work area combination of overview page, creation page, and details page. Instead, Customer Center has a series of tree nodes that, when selected, display user interface pages, and even a single page can be associated with multiple business objects.

This table lists Customer Center pages, and the related objects that you can access in the Application Composer to customize those pages.

Customer Center Page	Customer Center Region	Application	Underlying Business Object
Consumer Profile	Addresses region	Common	Trading Community Address
Consumer Profile	Consumer Basic Information region	Common	Trading Community Person Profile
Consumer Profile	Consumer Details region	Common	Trading Community Person Profile
Consumer Profile	Sales Account region	Customer Center	Sales Account
Contact Profile	Address region	Common	Trading Community Address
Contact Profile	Basic Information region	Common	Trading Community Org Contact

Contact Profile	Contact Details region	Common	Trading Community Org Contact
Contact Profile	Contacts region (also known as the Contacts List)	Common	Trading Community Org Contact
Create Consumer page and also the Quick Create Consumer page	New fields are added at the bottom of the page	Customer Center	Sales Account
Create Consumer page and also the Quick Create Consumer page	No specific region	Common	Trading Community Person Profile
Create Contact page and also the Quick Create Contact page	No specific region	Common	Trading Community Org Contact
Create Customer page and also the Quick Create Customer page	Contact Information region	Common	Trading Community Org Contact
Create Customer page and also the Quick Create Customer page	Customer Information region	Common	Trading Community Org Profile
Create Customer page and also the Quick Create Customer page	New fields are added at the bottom of the page.	Customer Center	Sales Account
Customer Profile	Addresses region	Common	Trading Community Address
Customer Profile	Basic Information region	Common	Trading Community Org Profile
Customer Profile	Customer Details region	Common	Trading Community Org Profile
Customer Profile	Sales Account region	Customer Center	Sales Account
Edit Customer page	Team Members region	Customer Center	Sales Account Resource (child object to the Sales Account)
Overview > Summary tab	Sales Accounts region (also known as the Sales Account List)	Customer Center	Sales Account
Real-Time Search: Customers page	Search region, by way of Advanced Search > Add Fields	Customer Center	Sales Account

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#### Note

To make only minor user interface changes to Customer Center pages without creating new objects or fields, use Oracle Composer instead of the Application Composer.

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#### Oracle Fusion Common CRM Objects

The Oracle Fusion Common CRM objects that are associated with Customer Center pages are:

- Trading Community Org Profile

- Trading Community Person Profile
- Trading Community Address
- Trading Community Org Contact

This table indicates which Common objects populate which Customer Center pages and regions, as well as the Application Composer configuration pages where you can make user interface changes on those pages and regions.

Business Object	Configuration Page in Application Composer	Related Customer Center Page	Related Customer Center Region
Trading Community Org Profile	Edit Customer Quick Creation Form	Create Customer page and also the Quick Create Customer page	Customer Information region
Trading Community Org Profile	Edit Read Only Form	Customer Profile	Basic Information region
Trading Community Org Profile	Edit Details Form	Customer Profile	Customer Details region
Trading Community Person Profile	Edit Contact/Consumer Quick Creation Form	Create Consumer page and also the Quick Create Consumer page	No specific region
Trading Community Person Profile	Edit Read Only Form	Consumer Profile	Consumer Basic Information region
Trading Community Person Profile	Edit Details Form	Consumer Profile	Consumer Details region
Trading Community Address	Edit Detail Form	Customer Profile	Addresses region
Trading Community Address	Edit Detail Form	Contact Profile	Addresses region
Trading Community Address	Edit Detail Form	Consumer Profile	Addresses region
Trading Community Org Contact	Edit Creation Form	Create Customer page and also the Quick Create Customer page	Contact Information region
Trading Community Org Contact	Edit Creation Form	Create Contact page and also the Quick Create Contact page	No specific region
Trading Community Org Contact	Edit Read Only Form	Contact Profile	Basic Information region
Trading Community Org Contact	Edit Contact Details Form	Contact Profile	Contact Details region
Trading Community Org Contact	Edit Summary Table	Contact Profile	Contacts region (also known as the Contacts List)

### Oracle Fusion Customer Center Objects

The Oracle Fusion Customer Center objects that are associated with Customer Center pages are:

- Sales Account

- Sales Account Resource (child of the Sales Account)

This table indicates which Customer Center objects populate which Customer Center pages and regions, as well as the Application Composer configuration pages where you can make user interface changes on those pages and regions.

Business Object	Configuration Page in Application Composer	Related Customer Center Page	Related Customer Center Region
Sales Account	Edit Creation Form	Create Customer page and also the Quick Create Customer page	New fields are added at the bottom of the page.
Sales Account	Edit Creation Form	Create Consumer page and also the Quick Create Consumer page	New fields are added at the bottom of the page.
Sales Account	Edit Details Form	Customer Profile	Sales Account region
Sales Account	Edit Details Form	Consumer Profile	Sales Account region
Sales Account	Edit Summary Table	Overview, then Summary tab	Sales Accounts region (also known as the Sales Account List)
Sales Account	Not applicable. Custom fields are automatically available from the list of additional fields.	Real-Time Search: Customers page	Search region, by way of Advanced Search, then Add Fields
Sales Account	Edit Regional Panes	Customer Work Area	Panes in the regional area
Sales Account Resource (child object to the Sales Account)	Edit Summary Table	Edit Customer: Sales Account Team page	Team Members region

### Using the Pages Overview Page

To add custom fields to the Customer Center pages listed in the tables above, use the Application Composer's various configuration pages. You access the configuration pages in the Application Composer from each object's Pages Overview page. Before you access the configuration pages, you must have already created your custom fields using the Application Composer.

To access the Pages Overview page:

1. Select either the **Common** or **Customer Center** application on the main Overview page.
2. In the object tree, select the object you want to customize.
3. Select the **Pages** node.
4. On the Pages Overview page, select the configuration page hyperlink related to the Customer Center page that you want to customize.

### Adding Custom Reports Using Oracle Composer

The customizations that you can make in Customer Center also include the creation of reports. This type of customization does not involve the creation of new fields or objects within the Application Composer. Instead, create a report using BI Answers, save the report to the Resource Catalog, and then use

Oracle Composer to add the report to two pages: the Customer Snapshot and the Customer Overview, Analysis tab.

---

**Note**

The reports that you add to the Customer Snapshot are within the context of a single customer, because you view a single customer when viewing the Snapshot. The reports that you add to the Analysis tab on the Customer Overview provide context across multiple customers, because you are viewing multiple customers on the Analysis tab.

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## Customizing Partner Management Pages Using Oracle Composer: Explained

In Oracle Fusion Partner Management, you can customize a variety of pages using Oracle Composer. To access Oracle Composer, navigate to one of the Partner Management pages that is enabled for customization, and select to customize that page from the **Administration** menu or **Personalization** menu in the global area. To customize the Partner Portal user interface (UI) shell, however, the Channel Partner Portal Administrator must use the customization links available in the Tasks pane on the Channel dashboard.

### Available Customization Options

When you select to customize a page from the **Administration** menu in the global area, or from the Channel dashboard for certain pages, you launch Oracle Composer.

The customizations that you make are applied based on your layer selection:

- Site  
Your customizations are visible to all users.
- Job Role  
Your customizations are visible to users who have the selected job role.
- External or Internal  
Depending on your selection, your customizations are visible to either external or internal users. External users could be your partners or anonymous users. Internal users could be your employees.

---

**Note**

Users can customize their own dashboard pages by selecting **Edit Current Page** from the **Personalization** menu. Such customizations are visible only to the user who made the change.

---

Oracle Composer uses two different modes of Design View. The first mode, Design View: Standard mode, is selected by default in all CRM pages when opening a page with Oracle Composer with the Design button selected. The

second mode, Design View: Direct Selection mode, is activated when you click the Select tab for the UI page you want to customize.

With the Design View: Direct Selection mode, you can select and edit UI components such as form fields and table columns. In Direct Selection mode, selectable UI components become apparent when you move your cursor over the UI component. Selectable UI components are highlighted and can be edited. In CRM, Direct Selection mode is available when you customize pages, but not when you personalize a dashboard page.

---

**Note**

Source View is also available to administrators with the Channel Partner Portal Administrator job role. Administrators use this view to make changes to the Partner Portal UI shell.

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This table lists the types of customizations that are available for Partner Management dashboard pages and other select pages. You perform all customizations in Design View.

Oracle Fusion Partner Management Page	Customization Task
<ul style="list-style-type: none"> <li>• Channel dashboard</li> <li>• Partner dashboard</li> <li>• Other select pages, such as the Partner Public Profile page, Partner Landing page, and Partner Registration page</li> </ul>	Add new content from the Resource Catalog.
<ul style="list-style-type: none"> <li>• Channel dashboard</li> <li>• Partner dashboard</li> <li>• Other select pages, such as the Partner Public Profile page, Partner Landing page, and Partner Registration page</li> </ul>	Delete a region from the dashboard.  <hr/> <b>Note</b>  You can later add the region back to the dashboard using the Resource Catalog.
<ul style="list-style-type: none"> <li>• Channel dashboard</li> <li>• Partner dashboard</li> <li>• Other select pages, such as the Partner Public Profile page, Partner Landing page, and Partner Registration page</li> </ul>	Change the page layout (for example, change from a two column layout to a three column layout).
<ul style="list-style-type: none"> <li>• Channel dashboard</li> <li>• Partner dashboard</li> <li>• Other select pages, such as the Partner Public Profile page, Partner Landing page, and Partner Registration page</li> </ul>	Move regions on a page: <ul style="list-style-type: none"> <li>• Move regions by drag and drop</li> <li>• Add content within an existing box (box displayed in dotted lines)</li> <li>• Add a box (content placeholder) up, down, left, or right by clicking the Add Box icons.</li> </ul>

**Customizing the Partner Portal UI Shell**

A user assigned the Channel Partner Portal Administrator job role can execute this customization task. After logging in, the administrator user can customize the UI shell by clicking the Update partner portal UI shell link in the regional

task list. This customization task uses a specific Oracle Composer mode called Source View. For more information on Source View, please refer to Oracle Fusion Middleware User's Guide for Oracle WebCenter Spaces.

Since you are customizing the partner portal UI shell for partner users and anonymous users, you make changes at the Internal or External level (using only External).

You can change:

- UI shell header (for example, add new content, hide or show global hyperlinks, and hide, show, or add menu items)
- UI shell footer (for example, add links)
- Branding logo
- Branding text
- Menu display: use either the Fusion navigator or a tabbed style menu

For example, to switch from the Fusion navigator to a tabbed style menu:

- a. In Oracle Composer, select the **Navigator** component on the UI, which highlights the corresponding element in Source View.
- b. Hide the **commandLink: Navigator** element by deselecting the **Show Component** property.
- c. Show the **panelGroupLayout: horizontal** element by selecting the **Show Component** property.

### Customization Privileges Required

To customize the Partner Portal UI shell, your assigned job role must also include the Partner Portal Customize Links Duty duty role. This duty role is assigned to the Channel Partner Portal Administrator job role by default. To customize the Channel or Partner dashboard, you must have the Channel Administrator job role.

## FAQs for Customization and Sandboxes

### What's the difference between Oracle Composer and Oracle Fusion CRM Application Composer?

Oracle Composer is an Oracle Fusion tool you can use to modify Oracle Fusion user interface (UI) pages and components for all products designated for use with Oracle Composer. Oracle Composer uses two different modes of Design View. The first mode, Design View: Standard mode, is selected by default in all CRM pages when opening a page with Oracle Composer with the Design button selected. The second mode, Design View: Direct Selection mode, is activated when you click the Select tab for the UI page you want to customize. In CRM, Direct Selection mode is available when you customize pages, but not when you personalize a dashboard page. With the Design View: Direct Selection mode, you can select and edit UI elements such as form fields and table columns. In Direct Selection mode, selectable UI components become apparent when you move your cursor over the UI component. Selectable UI components are highlighted and can be edited.

This table describes how you can use each mode of Oracle Composer to customize dashboard pages and other select pages (such as the Partner Public Profile page, Partner Landing page, Partner Registration, Customer Snapshot, and Customer Overview - Analysis tab), and customize transactional pages (all other non-dashboard pages):

Use Cases	Design View - Standard mode	Design View - Direct Selection mode	Page Type
Add content (Business Intelligence reports, CRM portlets such as Calendar)	Yes	No	Dashboard and other select pages
Delete region	Yes	No	Dashboard and other select pages
Move region	Yes	No	Dashboard and other select pages
Change page layout (for example, change a two column layout to three column layout)	Yes	No	Dashboard and other select pages
Default region state (open or close)	Yes	No	Transactional pages (all non-dashboard pages)
Manage save queries (create and edit)	Yes	No	Transactional pages (all non-dashboard pages)
Hide or show field	No	Yes	Transactional pages (all non-dashboard pages)
Change field label	No	Yes	Transactional pages (all non-dashboard pages)
Make field required or not	No	Yes	Transactional pages (all non-dashboard pages)
Make field read-only or updateable	No	Yes	Transactional pages (all non-dashboard pages)
Reorder fields in a Form	No	Yes	Transactional pages (all non-dashboard pages)
Reorder table columns	Yes	Yes	Transactional pages (all non-dashboard pages)
Hide or show table columns	Yes	Yes	Transactional pages (all non-dashboard pages)
Set table column width with the mouse	Yes	No	Transactional pages (all non-dashboard pages)
Set table column width and min width in percent or pixels	No	Yes	Transactional pages (all non-dashboard pages)
Make column sortable or not	No	Yes	Transactional pages (all non-dashboard pages)

The Oracle Fusion CRM Application Composer also lets you make UI changes at runtime. However, the types of UI changes that you can make using the Application Composer are quite different. Specifically, your primary focus when using the Application Composer is to make actual object model changes. For

example, you can create a new business object and related fields, and then create new application pages where that object and its fields are exposed to users. The ability to make these types of object model extensions is available only in Oracle Fusion CRM applications. Also, using the Application Composer, you cannot access the Resource Catalog to add new content to a page. With Application Composer, administrators can make customizations at the site level only.

This table describes some of the primary differences between Oracle Composer and the Application Composer:

Customization Task	Available in Oracle Composer (site, job role, external or internal level)?	Available in Oracle Fusion CRM Application Composer (site level only)?
Make object model extensions and expose your customizations by creating or modifying work area pages	No	Yes
Reorder subtabs	No	Yes
Customize dashboard pages	Yes	No
Add content from the Resource Catalog	Yes	No
Simple field customizations (show, hide, make read only, make required)	Yes (WYSIWYG - what you see is what you get)	Yes (non-WYSIWYG)
Select the MDS layer where you want to author customizations, such as at the site layer or job role layer	Yes	No
View results of customizations immediately	Yes, in the Oracle Composer design interface	Yes, in the CRM application that you are customizing



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## Define Sales Partners

### Define Sales Partners

#### Partners in Opportunities: Explained

Managing partners in Oracle Fusion Opportunity Management allows deploying companies to leverage alliances, thereby achieving growth and expansion strategies faster, and to maximize sales through broader territory coverage.

Opportunity Management partner relationship features focus on the following business benefits:

- Direct sales force and partners can work collaboratively and share information effectively as a team.
- The progress of a partner can be measured quantitatively, and thus compensated fairly based on the partner involvement.
- Revenue from partner opportunities can be more accurately forecasted by brand owners.

Using Opportunity Management, sales representatives can add partners to opportunities and revenue lines. Partner users of the application can work individually or with internal sales team members to win opportunities.

#### How Partners Are Added to Opportunities

Partners typically become involved in opportunities in one of the following ways:

- A partner-registered lead is converted to an opportunity: In this case, a partner registers a lead on the brand owner's sales force automation system. An internal resource (usually a channel manager) approves the registered lead, and an opportunity is created based on the registered lead. The partner on the registered lead becomes a part of the opportunity.
- Partner is added to an internal opportunity: In this case, an internal opportunity is created, either by a direct sales representative or through a lead-to-opportunity conversion, or any other method. The partner is manually added to the opportunity as the partner becomes engaged in the selling process.

## Supported Partner Functionality

Opportunity Management can distinguish between these different scenarios and take the appropriate action with regard to team assignment and credit allocation. Following is a high-level list of supported functionality:

- Automatic territory assignment of direct salespeople and channel managers to opportunities
- Manual assignment of partners to opportunities in which they collaborate
- Support for a consolidated (for example, partner plus direct sales force) forecast of expected supplier revenue
- A territory's forecast includes all, and only, those revenue items that fall into the territory's dimensional boundaries
- Channel sales can submit a nonrevenue forecast of partner opportunities, and this can be compared to the quota for channel sales
- Territory management analytics can distinguish between direct and indirect revenue by capturing the sales channel at the revenue line level
- Tracking of partner relationship contributions to sales opportunities that partners generate and help close
- Leads designated as sourced through a partner sales channel are not assigned to direct salespeople

## Partner Assignment to Opportunities: Explained

Much like any other internal resources, partners can be added or removed from the opportunity team manually. However, the resource picker displays only partner resources whose partner organization is already associated to the opportunity. The same behavior is applied when choosing a partner resource for credit allocation purpose.

### Partner Opportunity Assignment

A partner resource cannot be removed from the opportunity team if the resource is receiving nonrevenue credit on a revenue line on the opportunity. The credit allocations must first be removed from the partner resource. When a partner organization is removed from the opportunity and no resource from that partner is receiving credits on the opportunity, all partner resources, if they exist, will be automatically removed from the opportunity team.

After a partner is added to a revenue line, the next step is to assign matching territories to the revenue line and relevant resources to the opportunity sales team. Partner territories and Partner Program territories (territories of type equal to Partner or Partner Program) are not assigned to opportunities, since they are not used to drive territory forecasting, metrics, or reporting. However, other territories such as Prime, Overlay, Channel Sales Manager territories, and territories of custom defined types will be assigned based on matching dimensional attributes on the revenue line, much like an internal sales

opportunity. The treatment of a territory in terms of post-assignment, such as the side effect of adding territory owner or members to the opportunity team, is the same as that of an internal sales territory.

### **Sales Credits and Partners**

Partner resources are only eligible to receive nonrevenue credits on opportunity revenue. When selecting sales credits for partner resources, only partner resources whose partner organization is associated to the revenue line are eligible for sales credits. Partner resources are also not eligible for deal protection.

## **Manage Partner Accounts and Programs**

### **Internal and External Partner Users and Roles:Overview**

The Partner Center enables channel managers of a supplier or a brand owner that deploys the Oracle Fusion Partner Management application, to search for the partner accounts, as well as view and update the details of the partner profile, partner members, partner account team, partner programs, tasks, interactions, leads, and opportunities of the selected partner. The channel managers can only view the performance snapshot and partner contracts of the selected partner. The Partner Management application provides the following internal job roles:

- Channel Operations Manager
- Channel Account Manager
- Channel Sales Manager
- Channel Sales Director

A channel manager with any one of the above job roles can search and view the details of partner profile and related information of all partner accounts in Partner Center. Partner tasks, interactions, performance snapshots, leads, and opportunities are separately secured child objects of any partner account in Partner Center.

To view and update the partner tasks and interactions of any partner account in Partner Center, the channel manager needs to be a member of the partner account team of the partner account.

To view the partner performance snapshot and contracts of any partner account in Partner Center, the channel manager needs to be a member of the partner account team of the partner account.

### **Creating Partner User Accounts:Explained**

When you create a partner user, you enable the partner member to access and use the deploying company's resources for working on assigned tasks. You also assign job and security roles to the partner member's user profile and specify the organization to which the new user needs to belong.

## Assigning Job and Security Roles to Partner Users

Every partner user needs to have an assigned job role. This job role can be used to create security roles for the user. Based on the security roles you assign, the user can access applications, locations, and data within the deploying company. You may choose to assign security roles automatically to a user; you can also assign additional security roles individually if needed.

## Assigning Partner Users to Organizations

While assigning non-manager partner users to organizations, you can either select an organization or a manager. Once you select an organization, the manager of the selected organization becomes the new user's manager. Similarly, once you select a manager, the new user automatically becomes a member of the organization to which the manager belongs.

## Assigning Manager-Level Partner Users to Organizations

If the role of the new user is that of a manager, you need to assign the new user to an organization even after specifying a manager. This is because you granted the new user a managerial role, and you now need to specify the organization that the new user needs to manage. You can either select an organization from the list of available organizations, or you can create a new one if required.

# Automatic Role Provisioning: Explained

Automatic role provisioning is the process by which security roles are granted to a user based on the user's resource role.

Resource roles capture the nature of work intended to be performed by the partner user. As a result of automatic role provisioning, a range of security roles are granted to the new user. This enables users to access applications flows that are crucial for performing the tasks related to their resource roles.

Once the list of assigned security roles is populated, you can choose to remove roles or add new ones individually as needed.

## Enabling the Link to Register an Existing Account as a Partner: Worked Example

This example demonstrates how to enable the link to register an existing account as a partner. There are two registration task flows available from the partner registration landing page:

- Register Your Company as a New Partner
- Register You Existing Account as Partner. This is not enabled, by default.

## Enabling the Links

1. Login to the Channel Dashboard as `channel_partner_portal_administrator`
2. Click **View Partner Portal Registration Pages** in the Tasks region.

This launches the partner registration pages.

3. To enable the link to this task flow, customize the page using Oracle Composer using **Administration > Customize Page**
4. Select **External CustomizationLayer**
5. Click **Sign In** to the Partner Web Portal region  
This highlights the corresponding region in the source pane.
6. Select **component panelHeader: Sign In to the Partner Web Portal**
7. Find and select the **component commandlink: Register You Existing Account as Partner**.
8. To enable commandlink: Register You Existing Account as Partner, click **Edit** toolbar and access Edit from the **Mouse Context** menu
9. You can also click **Show Component** from the **Mouse Context** menu
10. In the **Edit Properties** dialog, access the **Display Options** tab and click **Show Component** to enable or display the link.
11. Exit Oracle Composer and when the page refreshes, the **Register Your Existing Account as Partner** link now appears in the registration landing page.

## Associating a Terms Template to a Partner Program:Worked Example

This example demonstrates how to associate a contract terms template to a partner program. The following table summarizes key decisions for this scenario:

Decisions to Consider	In This Example
Create a new terms template?	No. Use an existing terms template

### Prerequisites

1. Create a terms template from the Sales Contracts work area.
2. A program must exist in the draft status.

### Associating a Template to a Program

1. From the **Partner Programs** page, select a program that is in draft status.
2. Select **Agreements** tab and click **New** under **Actions**.
3. In the **Create Agreement Detail** window, complete the fields as shown in the table.

Field	Value
Language	English
Business Unit	Vision Operations

<b>Contract Template</b>	Select an available contract template <hr/> <b>Note</b> If a contract template is not available, you need to create a contract template from the Oracle Fusion Contracts application <hr/>
<b>Contract Type</b>	Select a contract type
<b>Contract Owner</b>	Optional. Select a contract owner
<b>Term</b>	1 year
<b>Acceptance</b>	Online
<b>Country</b>	Brazil
<b>Cancellation Reason</b>	Select a cancellation reason
<b>Close Reason</b>	Select a close reason. <hr/> <b>Note</b> A close reason is required, when a program period has gone beyond the expiration date for the program. <hr/>

4. Click **OK**.
5. Click **Save**.

## Enabling Partner Programs: Points to Consider

The channel organization can either enable partner programs or not enable them. If partner programs are not enabled, then the channel organization can conduct business with partners without the partner having to enroll one of the channel organization's partner programs. If partner programs are enabled, then the partner must enroll into a partner program before the partner can be active.

### Partner Programs Enabled

If you enable partner programs:

- you can set up program territories and child partner territories
- business intelligence, such as reporting and deals, can use partner program data

### Partner Programs Disabled

If you disable partner programs:

- you cannot set up program territories and child partner territories
- business intelligence cannot use program data, so you will not have reports based on program data.

- programs are not required for Lead Registration.

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#### Note

If you do not enable partner programs, you should remove from the application all job and duty roles for programs. By doing so, Programs will not appear in the Navigator menu and the Partner Programs node will not appear in Oracle Partner Center.

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## Customizing Terms and Conditions Link: Worked Example

During Partner Registration, the terms and conditions content can vary for different sites. You can customize the link to the terms and conditions content. This example demonstrates the steps to customize the **Read Terms and Conditions** hyperlink.

### Customizing the Terms and Conditions Link

1. Log into Channel Dashboard as `channel_partner_portal_administrator`
2. Click on the **View Partner Portal Registration Pages** in the **Tasks** region.  
This launches the Partner Registration pages
3. Click on **Register Your Company as a New Partner** link to access the registration pages
4. In the **Review and Accept Terms** page, access Oracle Composer to customize the Read Terms and Conditions link. To enable the link to this task flow, customize the page using Oracle Composer. Select **Customize** from the Administration menu.
5. Select the **External Customization** layer. Click on the Terms and Conditions region  
This highlights the corresponding region in the source pane.
6. Select **component panelHeader: Terms and Conditions** . Find and select the component **Hyperlink Component**
7. To customize the hyperlink destination URL, click **Edit** or access **Edit Component Properties** dialog from the Mouse Context menu.
8. In the Component Properties:Hyperlink dialog select the **Display Options** tab. Enter the desired Terms and Conditions document URL in the **Destination**field.
9. Click **Ok** and then click **Close** to exit Oracle Composer. Test whether the Read Terms and Conditions link displays the correct document.

## Channel Program Manager Territory and Partner Territory : How They Work Together

Channel Program Manager Territory and Partner Territory are some of the sales territories for a vendor. A sales territory is the area of responsibility of a sales representative over a set of accounts, leads and opportunities.

## Channel Program Manager Territory

A Channel Program Manager Territory and a Partner Territory will have an area of responsibility defined or bounded by a specific type and share the same data set of dimensions. Once a Channel Program Manager Territory has been created and activated from the Oracle Fusion Territory Management application, the territory can be reviewed in the Eligibility tab in the Program Details page.

## Partner Territories

Partner Territories are child territories of Channel Program Manager Territories.

# Manage Default Attributes for Partner Opportunities

## Partner Lead Registration Type in Opportunities: Explained

For partner-involved opportunities, capturing the lead registration type is vital to driving defaulting behavior within the opportunity for downstream processes of assignment and credit allocations. Supplied, supported lead registration types are Resell, Co-sell, and Referral, though the list can be extended through customization.

### Setting Lead Registration Type

Lead registration type can be set during the following events:

- When a lead is converted to an opportunity (occurs upon approval of a partner's lead registration). In this case, the lead registration type is carried over from the lead to the opportunity.
- When a partner is added manually to an opportunity, and the user can specify the lead registration type for the partner.

Based on a pre-configured setting, the system may set a default sales channel and add the opportunity partner to all the revenue lines based on the value of the lead registration type of the partner. Sales channel is one of the dimensions that drives the territory assignment logic, and the tracking of partner and sales channel at the revenue line is also important for revenue reporting by channel. The defaulting feature eliminates the need for the user to manually manage these attributes and also minimizes data entry errors which can have far-reaching consequences on revenue reporting and territory metrics.

The following table shows the pre-configured settings for lead registration type behavior:

Lead Registration Type	Add Partner to Revenue Lines?	Default Sales Channel for Revenue Lines
Referral	No	Direct
Co-sell	No	Direct
Resell	Yes	Indirect

None	No	Direct
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**Note**

Automatic propagation of the partner to the revenue lines (provided that the Add Partner to Revenue Lines setting is set to Yes) happens only when the first partner of that lead registration type is added to the opportunity. Subsequent additions of partners with a lead registration type that is flagged for partner propagation will not overwrite the first partner that has already been added by default to the lines. During the creation of a new revenue line, the system will also use the previously defaulted partner to populate the new line.

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## Partner Lead Attributes in Opportunities: Explained

After a partner lead registration is approved, it gets converted to an opportunity. During the conversion process, lead attributes, such as sales account, products, revenue amount, primary partner contact, and registration type, is carried over to the newly created opportunity. This topic describes the mapping of these attributes between the lead management and opportunity management applications. Note that only some of these attributes are specific to partner lead conversions; most of them also apply to standard lead conversion to opportunities.

The following table lists the mapping of general lead attributes carried over into opportunities at the header (opportunity) level.

Lead Attribute	Opportunity Attribute
Name	Name
Sales Account	Sales Account
Estimated Close Date	Estimated Close Date
Date Approved	Creation Date
Registration Type	Registration Type
Registration Number	Registration Number
Expiration Date	Expiration Date
Deal Approved By	Owner
Deal Approved By Resource Org	Resource Org
Budget Status	Budget
Budget Amount	Budget Amount
Currency Code	Currency Code
Partner	Partner
Partner Type	Partner Type
Partner Program	Partner Program
Owner	Primary Partner Resource

The following table lists the mapping of lead contacts attributes to opportunity contacts attributes.

Lead Attribute	Opportunity Attribute
Contact Attributes	Contact Attributes
Contact Role	Contact Role
Primary	Primary

The following table lists the mapping of lead products attributes to opportunity revenue line attributes.

Lead Attribute	Opportunity Attribute
Product	Product
Product Group	Product Group
Currency Code	Currency Code
Quantity	Quantity
Unit Price	Unit Price
Amount	Revenue Amount
Unit of Measure	Unit of Measure
Estimated Close Date (header)	Close Date

## Manage Partner Budgets

### Budget Dates: Explained

Marketing budgets exist for a limited time period, determined by the dates you specify.

When you create or edit a marketing budget, four date fields appear:

- Budget Start Date
- Budget End Date
- Fund Request Submission Deadline
- Claim Submission Deadline

These dates are described in the sections that follow.

#### Budget Start Date

This marks the beginning of the planning period for the budget. It is not necessarily the date on which the budget becomes available. You can create a budget with Draft status and then change it to Active when funds become available.

#### Budget End Date

This is the date the budget expires. It must be later than the submission deadlines for fund requests and claims. You must specify the end date before

you activate the budget. After this date, no funds can be drawn on the budget, no fund requests or claims can be made, and the budget cannot remain in or be placed in Active status. Optionally, you can inactivate the budget before this date.

### **Fund Request Submission Deadline**

This is the last date a budget fund request will be accepted. It must precede the budget end date.

### **Claim Submission Deadline**

This is the last date a budget claim will be accepted for reimbursement. It must precede the budget end date.

## **FAQs for Manage Partner Budgets**

### **What's the difference between a fund request and a claim?**

Partners can submit a fund request for expense items that they plan to claim, before incurring the expense. The approver can decide whether or not to approve some or all of the expense.

Partners submit claims for reimbursement of the approved expense after the expenses have been incurred.

### **When does the budget available balance get updated?**

When you click Refresh Budget Checkbook to update the available budget amount. The total budget is updated with entries that are Active, Complete and have an Effective Date before or equal to the current date. The available budget is the sum of total budget minus approved fund requests.

When claims that do not reference a fund request are approved.

## **Manage Default Attributes for Partner Opportunities**

### **Partner Lead Registration Type in Opportunities: Explained**

For partner-involved opportunities, capturing the lead registration type is vital to driving defaulting behavior within the opportunity for downstream processes

of assignment and credit allocations. Supplied, supported lead registration types are Resell, Co-sell, and Referral, though the list can be extended through customization.

### Setting Lead Registration Type

Lead registration type can be set during the following events:

- When a lead is converted to an opportunity (occurs upon approval of a partner's lead registration). In this case, the lead registration type is carried over from the lead to the opportunity.
- When a partner is added manually to an opportunity, and the user can specify the lead registration type for the partner.

Based on a pre-configured setting, the system may set a default sales channel and add the opportunity partner to all the revenue lines based on the value of the lead registration type of the partner. Sales channel is one of the dimensions that drives the territory assignment logic, and the tracking of partner and sales channel at the revenue line is also important for revenue reporting by channel. The defaulting feature eliminates the need for the user to manually manage these attributes and also minimizes data entry errors which can have far-reaching consequences on revenue reporting and territory metrics.

The following table shows the pre-configured settings for lead registration type behavior:

Lead Registration Type	Add Partner to Revenue Lines?	Default Sales Channel for Revenue Lines
Referral	No	Direct
Co-sell	No	Direct
Resell	Yes	Indirect
None	No	Direct

---

#### Note

Automatic propagation of the partner to the revenue lines (provided that the Add Partner to Revenue Lines setting is set to Yes) happens only when the first partner of that lead registration type is added to the opportunity. Subsequent additions of partners with a lead registration type that is flagged for partner propagation will not overwrite the first partner that has already been added by default to the lines. During the creation of a new revenue line, the system will also use the previously defaulted partner to populate the new line.

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# Importing and Exporting Setup Data

## Importing and Exporting Setup Data Configuration Packages: Explained

Almost all Oracle Fusion application implementations require moving functional setup data from one instance into another at various points in the lifecycle of the applications. For example, one of the typical cases in any enterprise application implementation is to first implement in a development or test application instance and then deploy to a production application instance after thorough testing. You can move functional setup configurations of applications from one application instance into another by exporting and importing Configuration packages from the Manage Configuration Packages page.

A Configuration Package contains the setup import and export definition. The setup import and export definition is the list of setup tasks and their associated business objects that identifies the setup data for export as well as the data itself. When you create a configuration package only the setup export and import definition exists. Once you export the configuration package appropriate setup data is added to the configuration package using the definition. Once a configuration package is exported, the setup export and import definition is locked and cannot be changed.

You generate the setup export and import definition by selecting an implementation project and creating a configuration package. The tasks and their associated business objects in the selected implementation project define the setup export and import definition for the configuration package. In addition, the sequence of the tasks in the implementation project determine the export and import sequence.

## Exporting and Importing Setup Data: Explained

A configuration package is required to export setup data. You can export a configuration package once you create it, or at any time in the future. During export, appropriate setup data will be identified based on the setup export definition and added to the configuration package. The setup data in the configuration package is a snapshot of the data in the source application instance at the time of export. After the export completes, you can download the configuration package as a zipped archive of multiple XML files, move it to the target application instance, and upload and import it.

### Export

You can export a configuration package multiple times by creating multiple versions. While the export definition remains the same in each version, the setup data can be different if you modified the data in the time period between the different runs of the export process. Since each version of the configuration package has a snapshot of the data in the source instance, you can compare and

analyze various versions of the configuration package to see how the setup data changed.

### **Import**

In the target application instance, the setup import process will insert all new data from the source configuration package that does not already exist and update any existing data with changes from the source. Setup data that exists in the target instance but not in source will remain unchanged.

### **Export and Import Reports**

You can review the results of the export and import processes using reports. The results appear ordered by business objects and include information on any errors encountered during the export or import process. If a setup export or import process paused due to errors encountered or for a manual task to be performed outside of the application, then you can resume the paused process.

These reports show what setup data was exported or imported and by which specific process. You can change the reports to validate the setup data as well as to compare or analyze it. A report is generated for each business object. These reports show the same information as the export and import results seen directly in the application.

Process status details are available as text files showing the status of an export or import process including the errors encountered during the process.

## **Moving Common Reference Objects**

### **Moving Common Reference Objects: Overview**

The common reference objects in Oracle Fusion Middleware Extensions for Applications are used by several setup tasks in the Setup and Maintenance work area. The common reference objects become a part of the configuration package that is created for an implementation project. While moving the application content, for example, from the test phase to the production phase of an implementation, you must pay special attention to the nuances of these common reference objects.

#### **Parameters**

The common reference objects are represented as business objects. A single object can be referenced in multiple setup tasks with different parameters. In the configuration package that is created for the implementation project, parameters passed to a setup task are also passed to the business objects being moved. As a result, the scope of the setup tasks is maintained intact during the movement.

#### **Dependencies**

Common reference objects may have internal references or dependencies among other common reference objects. Therefore, it is necessary that all the dependencies are noted before the movement of objects so that there are no broken references among the objects.

## **Business Objects for Moving Common Reference Objects: Points to Consider**

Common reference objects in Oracle Fusion Functional Setup Manager are represented by business objects. These business objects are the agents that contain the application content and carry them across whenever the application setup is moved from one environment to another, for example, test environment to production environment.

#### **Choice of Parameters**

The following table lists the business objects, the corresponding movement details, and the effect of the setup task parameter on the scope of the movement.

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**Note**

Only the translation in the current user language is moved.

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Business Object Name	Moved Functional Item	Effect on the Scope of Movement
Application Menu Customization	Customizations to the navigator menu	Movement of navigator menu customizations requires manual effort. For details regarding the manual command, refer to the Oracle Fusion Applications Administrators Guide.
Application Message	Messages and associated tokens	No parameters: all messages are moved.  moduleType/moduleKey: only messages belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  messageName/applicationId: only the specified message is moved.
Application Taxonomy	Application taxonomy modules and components	No parameters: all taxonomy modules and components are moved.
Application Attachment Entity	Attachment entities	No parameters: all attachment entities are moved.  moduleType/moduleKey: only attachment entities belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.
Application Attachment Category	Attachment categories and category-to-entity mappings	No parameters: all attachment categories and category-to-entity mappings are moved.  moduleType/moduleKey: only attachment categories belonging to the specified module and its descendant modules in the taxonomy hierarchy along with the respective category-to-entity mappings are moved.
Application Document Sequence Category	Document sequence categories	No parameters: all categories are moved.  moduleType/moduleKey: only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.  code/applicationId: only the specified document sequence category code is moved.

Application Document Sequence	Document sequences and their assignments	<p>No parameters: all sequences are moved.</p> <p><code>moduleType/moduleKey</code>: only document sequences belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved</p> <p><code>name</code>: only the specified document sequence is moved.</p>
Application Descriptive Flexfield	Descriptive flexfield registration data and setup data	<p>No parameters: all descriptive flexfields are moved.</p> <p><code>moduleType/moduleKey</code>: only descriptive flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>descriptiveFlexfieldCode/applicationId</code>: only the specified descriptive flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p>

Application Extensible Flexfield	Extensible flexfield registration data and setup data, including categories	<p>No parameters: all extensible flexfields are moved</p> <p><code>moduleType/moduleKey</code>: only extensible flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>extensibleFlexfieldCode/applicationId</code>: only the specified extensible flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p>
Application Key Flexfield	Key flexfield registration data and setup data	<p>No parameters: all key flexfields are moved.</p> <p><code>moduleType/moduleKey</code>: only key flexfields belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>keyFlexfieldCode/applicationId</code>: only the specified key flexfield is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a flexfield's metadata can change its deployment status and therefore, the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p> <hr/> <p><b>Note</b></p> <p>Only flexfields with a deployment status of Deployed or Deployed to Sandbox are eligible to be moved.</p>

Application Flexfield Value Set	Value set setup data	<p>No parameters: all value sets are moved.</p> <p><code>moduleType/moduleKey</code>: only value sets belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>valueSetCode</code>: only the specified value set is moved.</p> <hr/> <p><b>Note</b></p> <p>Importing a value set's metadata can change the deployment status of flexfields that use the value set, and therefore the affected flexfields must be redeployed. The import process automatically submits affected flexfields for redeployment.</p>
Application Reference Currency	Currency data	No parameters: all currencies are moved.
Application Reference ISO Language	ISO language data	No parameters: all ISO languages are moved.
Application Reference Industry	Industry data including industries in territories data	No parameters: all industries are moved.
Application Reference Language	Language data	No parameters: all languages are moved.
Application Reference Natural Language	Natural language data	No parameters: all natural languages are moved.
Application Reference Territory	Territory data	No parameters: all territories are moved.
Application Reference Time zone	Time zone data	No parameters: all time zones are moved.
Application Standard Lookup	Standard lookup types and their lookup codes	<p>No parameters: all standard lookups are moved.</p> <p><code>moduleType/moduleKey</code>: only standard lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: only the specified common lookup is moved.</p>

Application Common Lookup	Common lookup types and their lookup codes	<p>No parameters: all common lookups are moved.</p> <p><code>moduleType/moduleKey</code> - only common lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: only the specified common lookup is moved.</p>
Application Set-Enabled Lookup	Set-enabled lookup types and their lookup codes	<p>No parameters: all set-enabled lookups are moved.</p> <p><code>moduleType/moduleKey</code>: only set-enabled lookups belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>lookupType</code>: only the specified set-enabled lookup is moved.</p>
Application Profile Category	Profile categories	<p>No parameters: all profile categories are moved.</p> <p><code>moduleType/moduleKey</code>: only categories belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>name/applicationId</code>: only the specified category is moved.</p>
Application Profile Option	Profile options and their values	<p>No parameters: all profile options and their values are moved.</p> <p><code>moduleType/moduleKey</code>: only profile options and their values belonging to the specified module are moved.</p> <p><code>profileOptionName</code>: only the specified profile option and its values are moved.</p>

Application Profile Value	Profile options and their values	<p>No parameters: all profiles and their values are moved.</p> <p><code>moduleType/moduleKey</code>: only profiles and their values belonging to the specified module are moved.</p> <p><code>categoryName/categoryApplicationId</code>: only profiles and their values belonging to the specified category are moved.</p> <p><code>profileOptionName</code>: only the specified profile and its values are moved.</p>
Application Reference Data Set	Reference data sets	No parameters: all sets are moved.
Application Reference Data Set Assignment	Reference data set assignments	<p><code>determinantType</code>: only assignments for the specified determinant type are moved.</p> <p><code>determinantType/referenceGroupName</code>: only assignments for the specified determinant type and reference group are moved.</p>
Application Tree Structure	Tree structures and any labels assigned to the tree structure	<p>No parameters: all tree structures (and their labels) are moved.</p> <p><code>moduleType/moduleKey</code>: only tree structures (and their labels) belonging to the specified module are moved.</p> <p><code>treeStructureCode</code>: only the specified tree structure (with its labels) is moved.</p>
Application Tree	Tree codes and versions	<p>No parameters: all trees are moved.</p> <p><code>moduleType/moduleKey</code>: only trees belonging to the specified module are moved.</p> <p><code>treeStructureCode</code>: only trees belonging to the specified tree structure are moved.</p> <p><code>TreeStructureCode/TreeCode</code>: only trees belonging to the specified tree structure and tree code are moved.</p>

Application Tree Label	Tree structures and any labels assigned to the tree structure	<p>No parameters: all tree structures (and their labels) are moved.</p> <p><code>moduleType/moduleKey</code>: only tree structures (and their labels) belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>treeStructureCode</code>: only the specified tree structure (with its labels) is moved.</p>
Application Data Security Policy	Database resources, actions, conditions, and data security policies	<p>No parameters: all database resources/actions/conditions/policies are moved.</p> <p><code>moduleType/moduleKey</code>: only database resources/actions/conditions/policies belonging to the specified module and its descendant modules in the taxonomy hierarchy are moved.</p> <p><code>objName</code>: only the specified database resource along with its actions/conditions/policies is moved.</p> <hr/> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the policies being moved contain reference to newly created roles, move the roles before moving the policies.</li> <li>• If the source and target systems use different LDAPs, manually perform the GUID reconciliation after moving the data security policies.</li> </ul>
Application Activity Stream Configuration	Activity stream options	No parameters: all activity stream options are moved.

## Moving Related Common Reference Objects: Points to Consider

Certain common reference objects may use other common reference objects creating dependencies among the objects. During the movement of common reference objects, these dependencies or references need to be taken care of.

### Dependencies

The dependencies among the common reference objects may be caused by any of the following conditions.

- Flexfield segments use value sets

- Value sets may make use of standard, common, or set-enabled lookups
- Key flexfields may have an associated tree structure and key flexfield segments may have an associated tree code
- Tree codes and versions may be defined over values of a value set
- Data security policies may be defined for value sets that have been enabled for data security

You may choose to move one, some, or all of the business objects by including the ones you want to move in your configuration package. For example, you may choose to move only value sets and not lookups, or you may choose to move both value sets and their lookups as part of the same package. Whatever be the combination, it is recommended that during the movement of objects, you follow an order that maintains the dependencies among the objects.

While moving the business objects, adhere to the guidelines and exactly follow the order as listed below.

1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, attachments, reference data sets, document sequences, messages, and data security.
2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.

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**Note**

In scenarios where there may be dependencies on other objects, you must move the dependencies before moving the referencing object. For example, if data security policies being moved have dependencies on newly created security roles, you must move the security roles before moving the security policies.

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## Using Seed Data Framework to Move Common Reference Objects: Points to Consider

To move the common reference objects, you can use the Seed Data Framework (SDF). You can also use the command line interface of SDF to move the object setup data. For more information about seed data loaders including common reference object loaders, see Oracle Fusion Applications Developer's Guide.

## Movement Dependencies

The seed data interface moves only the setup metadata. For example, if you use SDF to import flexfield metadata, the flexfield setup metadata is imported into your database. However, you must invoke the flexfield deployment process separately after seed data import to regenerate the runtime flexfield artifacts in the target environment. Similarly, if you use SDF to import data security metadata, you must first move any new referenced roles and then manually run the GUID reconciliation where required.

To ensure that the reference data is not lost during the movement, certain guidelines are prescribed. It is recommended that you perform the movement of object data exactly in the order given below.

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### Note

Only the translation in the current user language is moved.

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1. Move created taxonomy modules before moving any objects that reference them, such as flexfields, lookups, profiles, attachments, reference data sets, document sequences, messages, and data security.
2. Move created currencies before moving any objects that reference them, such as territories.
3. Move created territories before moving any objects that reference them, such as languages and natural languages.
4. Move created ISO languages before moving any objects that reference them, such as languages, natural languages, and industries.
5. Move created tree structures before moving any objects that reference them, such as trees or tree labels.
6. Move created profile options before moving any objects that reference them, such as profile categories or profile values.
7. Move created attachment entities before moving any objects that reference them, such as attachment categories that reference them.
8. Move created reference data sets before moving any objects that reference them, such as reference data set assignments and set-enabled lookups.
9. Move created document sequence categories before moving any objects that reference them, such as document sequences.
10. Move created tree labels before moving any objects that reference them, such as trees.
11. Move created data security objects and policies before moving any objects that reference them, such as value sets.
12. Move created value sets before moving any objects that reference them, such as flexfields.
13. Move created trees before moving any objects that reference them, such as key flexfields.



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# Glossary

**abstract role**

A description of a person's function in the enterprise that is unrelated to the person's job (position), such as employee, contingent worker, or line manager. A type of enterprise role.

**accounting flexfield**

The chart of accounts that determines the structure, such as the number and order of individual segments, as well as the corresponding values per segment.

**accounting method**

A set of journal entry rules which determine how a subledger journal entry is to be created for each event class or event type.

**action**

The kind of access named in a security policy, such as view or edit.

**address style format**

Specifies the layout of an address, such as how many address lines it contains, and whether a city name is mandatory.

**ADF**

Acronym for Application Developer Framework. A set of programming principles and rules for developing software applications.

**adjusted forecast**

Total forecast for all revenue items that meet forecast criteria plus a salesperson's adjustment amount, which can be a positive or negative number.

**adjustment threshold**

Largest percentage of a quota that can be added as an adjustment.

**application feature**

A standardized functionality that is available to implemented.

**application identity**

Predefined application level user with elevated privileges. An application identity authorizes jobs and transactions for which other users are not authorized, such as a payroll run authorized to access a taxpayer ID while the user who initiated the job is not authorized to access such personally identifiable information.

**application module**

An application module is the transactional component that UI clients use to work with application data. It defines an updatable data model and top-level procedures and functions (called service methods) for a logical unit of work related to an end-user task.

**application module class**

Includes service methods or extended code required by the application module configuration.

**application role**

A role specific to applications and stored in the policy store.

**Applications Core**

Abbreviation for Oracle Fusion Middleware Extensions for Applications. The technical product code is FND.

**assignment**

A set of information, including job, position, pay, compensation, managers, working hours, and work location, that defines a worker's or nonworker's role in a legal employer.

**balancing segment**

A chart of accounts segment used to automatically balance all journal entries for each value of this segment.

**beneficiary**

A person or organization designated to receive benefits from a compensation plan on the death of the plan participant.

**BPEL**

Business Process Execution Language; a standard language for defining how to send XML messages to remote services, manipulate XML data structures, receive XML messages asynchronously from remote services, manage events and exceptions, define parallel sequences of execution, and undo parts of processes when exceptions occur.

**business function**

A business process, or an activity that can be performed by people working within a business unit and describes how a business unit is used.

**business object**

A resource in an enterprise database, such as an invoice or purchase order.

**business unit**

A unit of an enterprise that performs one or many business functions that can be rolled up in a management hierarchy.

**calendar event**

A period that signifies an event, such as a public holiday or a training course, that impacts worker availability.

**chart of accounts**

The account structure your organization uses to record transactions and maintain account balances.

**clause adoption**

Reusing a clause from the global business unit in local business units either by adopting the clause without change or by localizing it.

**clause localization**

A type of clause adoption where the adopted clause is edited to suit the local business unit needs.

**competency**

Any measurable behavior required by an organization, job, or position that a person may demonstrate in the work context. A competency can be a piece of knowledge, a skill, an attitude, or an attribute.

**condition**

An XML filter or SQL predicate WHERE clause in a data security policy that specifies what portions of a database resource are secured.

**content item**

An individual quality, skill, or qualification within a content type that you track in profiles.

**content library**

A repository of the content types and individual content items that can be associated with person profiles and profiles for workforce structures such as jobs and positions.

**content type**

An attribute such as a skill, quality, or qualification that is added to a profile.

**context**

A grouping of flexfield segments to store related information.

**context segment**

The flexfield segment used to store the context value. Each context value can have a different set of context-sensitive segments.

**context-sensitive segment**

A flexfield segment that may or may not appear depending upon a context such as other information that has been captured. Context-sensitive segments are custom attributes that apply to certain entity rows based on the value of the context segment.

**contingent worker**

A self-employed or agency-supplied worker. Contingent worker work relationships with legal employers are typically of a specified duration. Any person who has a contingent worker work relationship with a legal employer is a contingent worker.

**contract deviations**

Differences between the contract terms in a contract and those in the contract terms template applied to that contract and any deviations from company policies as determined by Contract Expert feature rules.

**Contract Expert**

A feature of the application that permits you to create business rules in the Contract Terms Library to enforce corporate policies and standards for contracts.

**Contract Terms Library**

A repository of standard clauses, contract terms templates, and business rules built using Contract Expert.

**contract terms template**

A template of standard clauses set up in the Contract Terms Library applied during contract authoring either automatically by the application or manually by contract authors.

**corporate rate type**

Rate you define to standardize rates used in conversion of one currency to another over a period of time. This rate is generally a standard market rate determined by senior financial management for use throughout the organization.

**cost center**

A unit of activity or group of employees used to assign costs for accounting purposes.

**cost organization**

A grouping of inventory organizations that indicates legal and financial ownership of inventory, and which establishes common costing and accounting policies.

**country holding company**

A legal entity that acts on behalf of several divisions within an enterprise, and is the legal employer in a country.

**data dimension**

A stripe of data accessed by a data role, such as the data controlled by a business unit.

**data instance set**

The set of human capital management (HCM) data, such as one or more persons, organizations, or payrolls, identified by an HCM security profile.

**data role**

A role for a defined set of data describing the job a user does within that defined set of data. A data role inherits job or abstract roles and grants entitlement to access data within a specific dimension of data based on data security policies. A type of enterprise role.

**data role template**

A template used to generate data roles by specifying which base roles to combine with which dimension values for a set of data security policies.

**data security**

The control of access to data. Data security controls what action a user can taken against which data.

**data security policy**

A grant of entitlement to a role on an object or attribute group for a given condition.

**database resource**

An applications data object at the instance, instance set, or global level, which is secured by data security policies.

**deal size**

Total monetary amount the customer is expected to spend.

**department**

A division of a business enterprise dealing with a particular area of activity.

**descriptive flexfield**

Customizable expansion space, such as fields used to capture additional descriptive information or attributes about an entity, such as customer cases. Information collection and storage may be configured to vary based on conditions or context.

**determinant**

A value that determines which reference data set will be used in a specific business context.

**determinant type**

Designates the field within transactional columns that controls how data is shared across organizations such as business unit, asset book, cost organization or project unit. The type determines the reference data sets that would be used in a transaction.

**determinant type**

An additional and optional field within transactional columns (besides category and application) that is used to assign document sequences. The available determinant types are Business Unit, Ledger, Legal Entity, and Tax Registration.

**determinant value**

A value specific to the determinant type dimension of a document sequence. The determinant value is relevant in a document sequence assignment only if the document sequence has a determinant type. If Ledger is the determinant type for a document sequence, the determinant value is the specific ledger number whose documents are numbered by the document sequence.

**dimension**

A data category used to define territory boundaries, such as geography. Dimensions contain related members usually organized in hierarchies. For example, a geography dimension often includes members such as countries and cities that belong to countries. Defined dimensions determine how to assign objects such as sales accounts, leads, and opportunities.

**dimension member**

Individual components of a dimension.

**division**

A business-oriented subdivision within an enterprise. Each division is organized to deliver products and services or address different markets.

**document sequence**

A unique number that is automatically or manually assigned to a created and saved document.

**document type**

A categorization of person documents that provides a set of options to control what document information to retain, who can access the documents, whether the documents require approval, and whether the documents are subject to expiry. A document type exists for a combination of document category and subcategory.

**duty role**

A group of function and data privileges representing one duty of a job. Duty roles are specific to applications, stored in the policy store, and shared within an Oracle Fusion Applications instance.

**educational establishment**

A school, college, university, or other learning institution.

**employment terms**

A set of information about a nonworker's or employee's job, position, pay, compensation, working hours, and work location that all assignments associated with the employment terms inherit.

**enterprise**

An organization with one or more legal entities under common control.

**enterprise role**

Abstract, job, and data roles are shared across the enterprise. An enterprise role is an LDAP group. An enterprise role is propagated and synchronized across Oracle Fusion Middleware, where it is considered to be an external role or role not specifically defined within applications.

**entitlement**

Grants of access to functions and data. Oracle Fusion Middleware term for privilege.

**extensible flexfield**

Customizable expansion space, as with descriptive flexfields, but able to capture multiple sets of information within a context and multiple contexts grouped to appear in a named region of a user interface page. Some extensible flexfields allow grouping contexts into categories.

**feature choice**

A selection you make when configuring offerings that modifies a setup task list, or a setup page, or both.

**fixed rate type**

Rate you set between two currencies that remains constant. For example, a rate set between the euro currency and each Economic and Monetary Union (EMU) currency during the conversion to the euro currency.

**flexfield**

Grouping of extensible data fields called segments, where each segment is an attribute added to an entity for capturing additional information.

**flexfield segment**

An extensible data field that represents an attribute on an entity and captures a single atomic value corresponding to a predefined, single extension column in the Oracle Fusion Applications database. A segment appears globally or based on a context of other captured information.

**forecast due date**

The date after which the forecast changes from current status to past status and no changes can be made to the forecast.

**free-form content type**

A content type that contains a code, name, and description only, and does not contain any properties until you add it to a profile type.

**function security**

The control of access to a page or a specific widget or functionality within a page. Function security controls what a user can do.

**gallery**

A searchable collection of portraits that combines the functions of the person directory with corporate social networking and self-service applications for both workers and managers.

**global area**

The region across the top of the user interface. It provides access to features and tools that are relevant to any page you are on.

**grade**

A component of the employment model that defines the level of compensation for a worker.

**HCM data role**

A job role, such as benefits administrator, associated with specified instances of Oracle Fusion Human Capital Management (HCM) data, such as one or more positions or all persons in a department.

**HCM securing object**

An HCM object that secures access to both its own data and data in other, related objects. For example, access to a specified set of person records can allow access to data secured by person records, such as goal plans and evaluations.

**identifier type**

An identifier type is a specific category of additional identifiers, numeric or otherwise, which can identify trading community members. Examples of identifier types could be bank account numbers, passport numbers, and so on.

**identity**

A person representing a worker, supplier, or customer.

**instance qualifier set**

A set of values that uniquely identifies multiple instances of the same profile item.

**interaction**

A record of contact or communication between internal and external contacts.

**interface table**

A database table used for transferring data between applications or from an external application or data file.

**inventory organization**

A logical or physical entity in the enterprise that is used to store definitions of items or store and transact items.

**inventory organization**

An organization that tracks inventory transactions and balances, and can manufacture or distribute products.

**item master**

A collection of data that describes items and their attributes recorded in a database file.

**item organization**

Item definition where inventory balances are not stored and movement of inventory is not tracked in the applications. Item attributes that carry financial and accounting information are hidden.

**item subinventory**

An association of an item with a subinventory that is created when you add an item to a subinventory.

**Items**

Entries within the Product master database. For example, items for a manufacturing company can include nuts, bolts, and screws.

**job**

A generic role that is independent of any single department or location. For example, the jobs Manager and Consultant can occur in many departments.

**job role**

A role for a specific job consisting of duties, such as an accounts payable manager or application implementation consultant. A type of enterprise role.

**key flexfield**

Configurable key consisting of multiple parts or segments, each of which may be meaningful individually or in combination with the others. Key flexfields are commonly implemented to represent part numbers and account numbers.

**key flexfield segment instance**

A single occurrence of a key flexfield segment in a key flexfield structure instance.

**key flexfield structure**

The arrangement of segments in a key flexfield. In some cases, multiple structures can be defined for a single key flexfield.

**key flexfield structure instance**

A single occurrence of a key flexfield structure that shares the same order of segments as every other instance of the key flexfield structure, but uses different value sets to validate the segments.

**lead rank**

A configurable set of values such as hot, warm, or cool used to prioritize leads for lead qualification and sales engagement.

**legal authority**

A government or legal body that is charged with powers such as make laws, levy and collect fees and taxes, and remit financial appropriations for a given jurisdiction.

**legal employer**

A legal entity that employs people.

**legal entity**

An entity is identified and given rights and responsibilities under commercial law, through the registration with the country's appropriate authority.

**legal jurisdiction**

A physical territory, such as a group of countries, single country, state, county, parish, or city, which comes under the purview of a legal authority.

**legal reporting unit**

The lowest level component of a legal structure that requires registrations. Used to group workers for the purpose of tax and social insurance reporting

or represent a part of your enterprise with a specific statutory or tax reporting obligation.

**legislative data group**

A means of partitioning payroll and related data. At least one legislative data group is required for each country where the enterprise operates. Each legislative data group is associated with one or more payroll statutory units.

**line of business**

Set of one or more highly related products which service a particular customer transaction or business need. Refers to an internal corporate business unit.

**lookup code**

A value available for lookup within a lookup type such as the code BLUE within the lookup type COLORS.

**lookup type**

A set of lookup codes to be used together as a list of values on a field in the user interface.

**mainline**

A branch of data that serves as a single source of truth.

**managed person**

In Oracle Fusion Human Capital Management security, a person for whom the user can maintain some information. For example, line managers can maintain information about their direct and indirect reports, and workers can maintain information about themselves, their dependents, and their beneficiaries.

**manufacturing facilities**

Employed in the making of goods for sale such as a factory or plant.

**market potential**

Estimated revenue for sales leads and recommendations within a territory.

**model profile**

A collection of the work requirements and required skills and qualifications of a workforce structure, such as a job or position.

**name style format**

Specifies the layout of a name, such as first name, last name, and phonetic last name.

**named account**

A sales account that can be assigned directly to a sales territory.

**natural account**

Categorizes account segment values by account type, asset, liability, expense, revenue, or equity, and sets posting, budgeting, and other options.

**natural account segment**

A chart of accounts segment used to categorize your accounting transactions by account type: asset, liability, owner's equity, revenue, or expense.

**offering**

A comprehensive grouping of business functions, such as Sales or Product Management, that is delivered as a unit to support one or more business processes.

**overlay territory**

A territory, usually owned by an internal employee, whose team supports the sales activities within the territory boundaries. Overlay territories often overlap with one or more prime or other overlay territories.

**OWLCS**

Abbreviation for Oracle WebLogic Communication Services. Offers the TPCC service to Fusion applications and sets up the calls via SIP integration with the telephony network.

**partner**

Independent company that works with multiple vendors, selling and servicing on behalf of a vendor.

**party fiscal classification**

A classification used by a tax authority to categorize a party for a tax.

**payroll statutory unit**

A legal entity registered to report payroll tax and social insurance. A legal employer can also be a payroll statutory unit, but a payroll statutory unit can represent multiple legal employers.

**pending worker**

A person who will be hired or start a contingent worker placement and for whom you create a person record that is effective before the hire or start date.

**person type**

A subcategory of a system person type, which the enterprise can define. Person type is specified for a person at the employment-terms or assignment level.

**personally identifiable information**

Any piece of information that can potentially be used to uniquely identify, contact, or locate a single person. Within the context of an enterprise, some PII data can be considered public, such as a person's name and work phone number, while other PII data is confidential, such as national identifier or passport number.

**PL/SQL**

Abbreviation for procedural structured queried language.

**portrait**

A selection of information about a worker or nonworker, including contact details, social connections, and activities and interests, that can be viewed and edited. Both the amount and type of information and the available actions depend on the role of the portrait user.

**position**

A specific occurrence of one job, fixed within one department, also often one location. For example, the position Finance Manager is an instance of the job Manager in the Finance Department.

**primary ledger**

Main record-keeping ledger.

**prime territory**

A territory that is usually owned by an internal employee who is directly responsible for sales within the territory boundaries. Prime territories aim to assign sales representatives to each region where potential customers are located.

**privilege**

A grant or entitlement of access to functions and data. A privilege is a single, real world action on a single business object.

**profile option**

User preferences and system configuration options consisting of a name and a value, that can be set at hierarchical levels of an enterprise. Also called a profile or user option.

**profile option level**

A level at which profile option values are defined. Site, product, and user are predefined levels.

**profile option level hierarchy**

The ordering of profile option levels. The order of the levels in the hierarchy determines which levels take precedence.

**profile option value**

The value portion of a profile option's name and value. A profile option may have multiple values set at different levels, such as site or user.

**profile type**

A template that defines the content sections of a profile, role access for each section, and whether the profile is for a person, or for a workforce structure such as a job or position.

**project expenditure organization**

An organization that can incur expenditures and hold financial plans for projects.

**PSTN**

Abbreviation for public switched telephone network which is the network of the world's public circuit-switched telephone networks.

**public person**

In Oracle Fusion Human Capital Management security, a person for whom some basic information is publicly available. For example, users typically access the contact details of public persons, such as phone numbers and locations, using the person gallery.

**qualified lead**

A qualified lead is one where the lead qualification status has been updated to qualified. Generally, a lead is considered qualified and ready for conversion to a sale when the need, purchase interest, and budget are confirmed and a sales account and primary product are associated with the lead.

**quota**

A revenue target, often tied to expected performance.

**rating model**

A scale used to measure the performance and proficiency of workers.

**reference data**

Data in application tables that is not transactional and not high-volume such as sales methods, transaction types, or payment terms, and can be shared and used across organizational boundaries.

**reference data set**

Contains reference data that can be shared across a number of business units or other determinant types. A set supports common administration of that reference data.

**reference group**

A logical grouping of tables that correspond to logical entities such as payment terms defined across multiple tables or views. Grouping establishes common partitioning requirements across the entities causing them to share the same set assignments.

**registration**

The record of a party's identity related details with the appropriate government or legal authorities for the purpose of claiming and ensuring legal and or commercial rights and responsibilities.

**resource**

People designated as able to be assigned to work objects, for example, service agents, sales managers, or partner contacts. A sales manager and partner contact can be assigned to work on a lead or opportunity. A service agent can be assigned to a service request.

**response**

A recorded reaction of a prospect or customer to a marketing activity.

**role**

Controls access to application functions and data.

**role hierarchy**

Structure of roles to reflect an organization's lines of authority and responsibility. In a role hierarchy, a parent role inherits all the entitlement of one or more child roles.

**role mapping**

A relationship between one or more job roles, abstract roles, and data roles and one or more conditions. Depending on role-mapping options, the role can be provisioned to or by users with at least one assignment that matches the conditions in the role mapping.

**role provisioning**

The automatic or manual allocation of an abstract role, a job role, or a data role to a user.

**sales account**

Parties with the usage Sales Account and a sales account profile containing sales information specific to the party. When a party has one sell to address, it ceases to be a sales prospect and becomes a new sales account. When the party purchases something, it changes from a new to an existing sales account.

**sales quota plan**

Plan that contains all quota activities for the fiscal year, created by the administrator. Actual sales and pipeline are tracked against only one quota plan for the year.

**sandbox**

A runtime session that commits changes out of reach of mainline users.

**security profile**

A set of criteria that identifies one or more human capital management (HCM) objects of a single type for the purposes of securing access to those objects. Security profiles can be defined for persons, organizations, positions, countries, LDGs, document types, payrolls, payroll flows, and workforce business processes.

**security reference implementation**

Predefined function and data security in Oracle Fusion Applications, including role based access control, and policies that protect functions, data, and segregation of duties. The reference implementation supports identity management, access provisioning, and security enforcement across the tools, data transformations, access methods, and the information life cycle of an enterprise.

**segregation of duties**

An internal control to prevent a single individual from performing two or more phases of a business transaction or operation that could result in fraud.

**service provider model**

A business unit that provides specific business functions for another business unit.

**set**

Reference data that is organized into groups appropriate to organizational entities, to enable reference data sharing.

**set enabled**

An entity, such as a lookup, customer, location, organization, or document attachment, that is allowed to participate in reference data sharing by drawing on the data of a reference data set.

**SOA**

Abbreviation for service-oriented architecture.

**spot rate type**

Rate you enter to perform conversion based on this rate as of a specific date. This rate applies to the immediate delivery of a currency.

**SQL predicate**

A type of condition using SQL to constrain the data secured by a data security policy.

**storage facilities**

Commercial building for storage of goods such as a warehouse.

**system person type**

A fixed name that the application uses to identify a group of people.

**tax registration**

The registration of a party with a tax authority that confers tax rights and imposes certain tax obligations.

**territory**

The jurisdiction of responsibility of a salesperson or sales manager over a set of sales accounts. Territories serve as a basis for forecasting, quota, compensation, and analysis of sales performance.

**territory**

A legally distinct region that is used in the country field of an address.

**territory coverage**

A territory coverage is a set of boundaries that define what is included or excluded in the territory and what can be sold. For example, sell all products in North America. In addition to this regular coverage, selected sales accounts or partners can be included or excluded from the territory being defined.

**territory freeze date**

The date after which forecasting stops accepting territory hierarchy changes for the scheduled forecast, and forecasting activities can begin.

**territory owner**

Resource assigned to manage a territory and is typically accountable for the work objects, such as opportunities, that are within the boundaries of the territory.

**territory proposal**

A sandbox container used to model territory changes. All valid territories within a proposal become active on the proposal activation date.

**tree**

Information or data organized into a hierarchy with one or more root nodes connected to branches of nodes. A tree must have a structure where each node corresponds to data from one or more data sources.

**tree structure**

Characteristics applied to trees, such as what data to include or how the tree is versioned and accessed.

**tree version**

An instance of a tree. If a tree is associated with a reference data set, all versions belong to one set. Includes life cycle elements such as start and end date and a status indicator whether the tree is active or not.

**user rate type**

Rate you enter at journal entry time to convert foreign currency transactions to your functional currency.

**value set**

A set of valid values against which values entered by an end user are validated. The set may be tree structured (hierarchical).

**work relationship**

An association between a person and a legal employer, where the worker type determines whether the relationship is a nonworker, contingent worker, or employee work relationship.

**workforce business process**

A defined sequence of tasks, registered for the enterprise, that delivers a major business goal. The tasks may be allocated to multiple roles across multiple products.

**XML filter**

A type of condition using XML to constrain the data secured by a data security policy.