Oracle Sales Cloud
Implementing Customer Data Management

Release 13 (update 18C)
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Preface

This preface introduces information sources that can help you use the application.

Using Oracle Applications

Using Applications Help

Use help icons 🤔 to access help in the application. If you don’t see any help icons on your page, click your user image or name in the global header and select Show Help Icons. Not all pages have help icons. You can also access Oracle Applications Help.

Watch: This video tutorial shows you how to find help and use help features.

You can also read Using Applications Help.

Additional Resources

- **Community:** Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.
- **Guides and Videos:** Go to the Oracle Help Center to find guides and videos.
- **Training:** Take courses on Oracle Cloud from Oracle University.

Conventions

The following table explains the text conventions used in this guide.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates user interface elements, navigation paths, or values you enter or select.</td>
</tr>
<tr>
<td><strong>monospace</strong></td>
<td>Monospace type indicates file, folder, and directory names, code examples, commands, and URLs.</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than symbol separates elements in a navigation path.</td>
</tr>
</tbody>
</table>

Documentation Accessibility

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website. Videos included in this guide are provided as a media alternative for text-based help topics also available in this guide.
Contacting Oracle

Access to Oracle Support
Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit My Oracle Support or visit Accessible Oracle Support if you are hearing impaired.

Comments and Suggestions
Please give us feedback about Oracle Applications Help and guides! You can send an e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.
1 About This Guide

Audience and Scope

This guide provides conceptual information and procedures needed to implement Customer Data Management-specific components and features of Oracle Sales Cloud.

This guide provides guidance for implementing Customer Data Management-specific components and features of Oracle Sales Cloud. This guide assumes your company’s sales cloud service is up and running at a basic level, as described in the use case contained in the Oracle Sales Cloud, Getting Started with Your Implementation guide.

This guide also assumes that you have done additional setup for Core Sales following the Oracle Sales Cloud - Implementing Sales guide.

Related Guides

You can refer to the related guides listed in the following table to understand more about the tasks covered in this guide.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Customer Data Management Cloud Getting Started with Your Customer Data Management Implementation</td>
<td>Describes how to get started with the implementation of Customer Data Management cloud service capabilities such as duplicate identification, duplicate resolution, address verification, and data enrichment. This guide uses the default settings provided by Oracle and does not provide detailed explanations of all available features.</td>
</tr>
<tr>
<td>Oracle Customer Data Management Cloud Using Customer Data Management</td>
<td>Contains conceptual information and procedures needed to manage customer information and customer data quality. You can use this guide to work with the customer data management cloud service capabilities such as duplicate identification, duplicate resolution, address verification, and data enrichment.</td>
</tr>
<tr>
<td>Oracle Sales Cloud - Extending Sales</td>
<td>Describes how to create and extend objects and configure the user interfaces and navigation menus.</td>
</tr>
<tr>
<td>Oracle Sales Cloud Understanding File-Based Data Import and Export</td>
<td>Describes how to import legacy and other data into Oracle Sales Cloud using File-Based Data Import.</td>
</tr>
<tr>
<td>Oracle Sales Cloud File-Based Data Import for Oracle Sales Cloud</td>
<td>Directs you to reference information that you can use to create an importable source data file for the import of individual objects.</td>
</tr>
</tbody>
</table>
2 Overview of Customer Data Management

Customer Data Management in Oracle Sales Cloud: Overview

The customer data management setup involves reviewing and defining the configuration required to manage customer information and their business relationships.

Key Features

You can use customer data management functionality to:

- Prevent and identify duplicate data: You can identify duplicates during real-time or in a preconfigured batch. Real-time account and contact searching and matching prevent the creation of duplicate data. You can identify potential duplicate data based on the preconfigured matching configurations.

- Verify and standardize addresses: You can perform real-time and batch address cleansing for account or contact address information. You can verify and cleanse addresses within an import batch during import. The addresses are verified against the master geography area and cleansed. The geography validation feature can also be enabled to check if the entered address maps to the geography hierarchy data available for the country.

- Resolve duplicate data: You can merge and link duplicate records to create master records that are the single source of truth. You can de-duplicate within an import batch as well as within the entire database. Customer data management uses a data quality engine to consolidate high quality account and contact data from multiple sources, manage duplicate data, enhance data with third-party content, standardize addresses, and monitor data quality. These data quality checks ensure cleansed, enriched, and complete customer information that can be trusted by the sales team.

Implementing Customer Data Management Cloud: Overview

To start an implementation of Customer Data Management Cloud, a user with the Application Implementation Consultant role (ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB) must opt into the offerings applicable to your business requirements. Refer to the Oracle Applications Cloud Using Functional Setup Manager guide to manage the opt-in and setup of your offerings.

Customer Data Management Offering

Use this offering to configure the customer data management processes to clean, consolidate, and enrich customer information, and to create a trusted master customer profile.

The following table specifies the primary functional areas of this offering. For the full list of functional areas and features in this offering, use the Associated Features report that you review when you plan the implementation of your offering.
### Overview of Customer Data Management

#### Functional Area

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Quality</td>
<td>Manage data quality configurations to define how the data quality services, such as data quality matching and cleansing, are run during real time and during batch execution. Data quality services use these configurations to call appropriate services of the embedded data quality engine to consolidate, cleanse, and enrich customer data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Hub</th>
<th>Manage setup for the following features:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• <strong>Customer Information Management</strong>: Import, create, and manage customer information, such as profile, usage assignments, relationships, classifications, source system references, hierarchy memberships, linked records, accounts, and contacts, in the Organizations, Persons, and Groups work areas.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Hierarchy Management</strong>: Manage the hierarchy of your customers across business processes. For example, you can use the hierarchy management capability to capture your customer’s corporate hierarchy and to show how headquarters, branches, subsidiaries, and so on are related. You can use the corporate hierarchy information to process payments from one customer and apply them to another customer in the same hierarchy.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Data Enrichment</strong>: Enrich account and contact data to ensure it is comprehensive. Data enrichment improves the quality of your existing account or contact data and address information as well as enriches that data with additional information.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Duplicate Identification</strong>: Identify potential duplicates during data entry, data integration, or among records already in the application.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Duplicate Resolution</strong>: Resolve duplicates either by directly merging them or by creating duplicate resolution request, such as merge or link. The resolution request can be verified, approved or rejected, and processed later.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Address Cleansing</strong>: Cleanse address data existing in the registry and ensures data accuracy over time. Real-time address cleansing ensures that the incoming data from source systems follows the same convention as the target system for consistent information.</td>
</tr>
</tbody>
</table>

**Related Topics**

- Planning Your Implementation: Procedure
3 Perform Initial Setup Tasks

Overview

Performing Sales Setup Tasks

For most sales setup tasks, you use the Setup and Maintenance work area to access the setup pages associated with the component or feature. The Setup and Maintenance work area is also known as the Functional Setup Manager.

For sales setup tasks, a user with the Sales Administrator role performs many, if not most, of the setup and configuration tasks. For more information on typical sales administrator tasks, see the topic, About the Sales Administrator.

You navigate to the Sales offering to access setup tasks:

1. Sign in as the sales administrator or as a setup user and navigate to the Setup and Maintenance work area. The Setup page appears with an offering selected.
   
   Tip: To navigate to Setup and Maintenance, you can use the Navigator menu or the menu underneath your user image or name in the global header.

2. In the Setup page, select the Sales offering.
3. The Setup: Sales page appears with a list of functional areas.
4. In the list of functional areas, click the functional area that has the tasks you need to access. A list of required tasks for the area is displayed.
5. In the list of tasks that appears, find the task you want and select it. (If the task you want is not in the list, show All Tasks in the tasks filter.) The setup page for the task appears.

For more information about Functional Setup Manager, see the Oracle Applications Cloud Using Functional Setup Manager guide and the related topics.

Related Topics
- About the Sales Administrator
- Oracle Applications Cloud Using Functional Setup Manager
- Functional Setup Manager: Overview

Setup and Maintenance Basics

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 is the highest level grouping of Oracle Fusion Applications functionality. They include functional areas, and alternative business rules known as features.

Offering Related Documents: Explained

Related documents are intended to help you plan a successful implementation of the offerings available on the Getting Started page. Every offering contains a default set of reports as related documents. You cannot modify the default documents. In addition to these reports, you can add reports and other related documents to help with planning and implementation or when performing setup tasks. The documents available by default are:

Offering Content Guide
This report shows detailed information on the business processes and activities supported by the offering.

Setup Task Lists and Tasks Report
This report shows the list of task lists and tasks that you should complete to successfully implement the offering.

Associated Features Report
This report shows the list of functional areas and features associated with the offering.

Related Business Objects Report
This report shows all setup data needed to implement the offering. It provides a list of all business objects that are associated with the setup tasks belonging to the offering.

Related Enterprise Applications Report
This report shows the list of enterprise applications used by the functional pages and web services for the offering.

Opting in to Features: Procedure

To opt in to a feature:

1. First opt in to the functional area containing the feature.
2. Click the Features icon to open the Edit Features page.
3. Locate the feature you want to implement on the Edit Features page. If needed, click Help to get more details on the functionality that each feature supports.
4. Depending on the feature type, a check box (for Yes/No features) or a Features icon (for single and multiple choice features) displays in the Enable column. Select Enable for the Yes/No feature to be implemented, or click the Features icon and select the choices you want to implement for the corresponding feature. Click Save and Close.
5. Click Done when complete.

What's a functional area?

A functional area is a grouping of functionality within an offering. It may be an optional piece of functionality that you may want to implement as part of an offering. Optional functional areas can be included or excluded from their parent offering. Functional areas may be hierarchical, and therefore may be subordinate to another functional area. An offering has at least
one base or core functional area and may have one or more optional functional areas. Additionally, one or more or features may be associated to an offering.

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.

The following table contains an example of a lookup type for marital status (MAR_STATUS) that has lookup codes for users to specify married, single, or available legal partnerships.

<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Meaning</th>
<th>Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Married</td>
<td>Not applicable</td>
</tr>
<tr>
<td>S</td>
<td>Single</td>
<td>Not applicable</td>
</tr>
<tr>
<td>R</td>
<td>Registered Partner</td>
<td>+NL</td>
</tr>
<tr>
<td>DP</td>
<td>Domestic Partner</td>
<td>-FR, AU</td>
</tr>
</tbody>
</table>

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
- Configuration 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.

**Configuration Level**

The configuration 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 configuration 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 predefined lookup codes cannot be modified. Some predefined lookup codes can be changed during implementation or later, as needed.

The configuration levels are user, extensible, and system. The following table shows the lookup management tasks permitted at each configuration level.

<table>
<thead>
<tr>
<th>Permitted Task</th>
<th>User</th>
<th>Extensible</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deleting a lookup type</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Inserting new codes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Updating start date, end date, and enabling the lookup code</td>
<td>Yes</td>
<td>Yes, only if the code is not predefined data</td>
<td>No</td>
</tr>
<tr>
<td>Deleting codes</td>
<td>Yes</td>
<td>Yes, only if the code is not predefined data</td>
<td>No</td>
</tr>
<tr>
<td>Updating tags</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Updating module</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Predefined data means LAST_UPDATED_BY = SEED_DATA_FROM_APPLICATION.

If a product depends on a lookup, the configuration level must be system or extensible to prevent deletion.

Once the configuration level is set for a lookup type, it can’t be modified. The configuration level for newly created lookup types is by default set at the User level.

**Standard, Common, and Set-Enabled Lookups**

The following table shows the available types of lookups.

<table>
<thead>
<tr>
<th>Lookup Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>Lists the available codes and translated meanings.</td>
</tr>
<tr>
<td>Set-enabled</td>
<td>Associates a reference data set with the lookup codes.</td>
</tr>
<tr>
<td>Common</td>
<td>Legacy lookups or lookups that have attributes.</td>
</tr>
</tbody>
</table>
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. These can also be lookups having attribute columns. 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 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.

To view the predefined lookups and their lookup codes, use the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set-Enabled Lookups

### Translating Lookups

You can translate the lookups that you defined to the preferred language(s) without changing the language session of the application. Use the translation option available on the lookup code table. By default, for each lookup, all the permitted language rows in the translator dialog box appear in the source language (the current session language). When you edit a particular language entry, you can modify the translated meaning and description to the language in which you want the lookup to appear. Once the updates are made, the end-users can view the lookup in the translated text.

**Note:** You can add the translation for only as many languages as are permitted by the administrator. The functionality to limit the number of languages displayed on the dialog box is controlled through the Translation Editor Languages profile option. It can be set at the SITE or USER level. If nothing is specified, all active languages are displayed.

**Related Topics**

- How can I access predefined lookups
- Managing Set-Enabled Lookups: Examples
- What’s the difference between a lookup type and a value set
How can I edit lookups?

On any of the Manage Lookups pages, you can edit the existing lookup codes of a lookup type or add new lookup codes. You can edit lookups using the following tasks in the Setup and Maintenance work area:

- Manage Standard Lookups
- Manage Common Lookups
- Manage Set-enabled Lookups

Each task contains a predefined set of lookup types that are classified and stored. Open a task to search and edit the required lookup. However, you may not be able to edit a lookup if its configuration level doesn't support editing.

Why can't I see my lookup types?

Lookup types are classified using tasks that involve a group of related lookups, such as Manage Geography Lookups. Each task gives you access only to certain lookup types. However, the generic tasks provide access to all lookups types of a kind, such as common lookups associated with the Manage Common Lookups task.

If the lookup types in an application are available in the standard, common, or set-enabled lookups view, they're are central to an application. However, lookup types defined for a specific application are managed using the task or task list for that application.

Profile Options

Hierarchy in Profile Levels: Explained

The hierarchy in profile levels determines the context for making a profile option effective. You can enable a profile option at the following levels:

- Site level (lowest): The entire site of deployment
- User level (highest): A specific user

After you create or edit a profile option on the Manage Profile Options page, you must enable it. You can enable it at multiple levels. The setting at the highest enabled level takes precedence over the lower levels. User level is the highest in the hierarchy and always takes precedence over the settings at the site level.

On the Manage Administrative Profile Values page, set the profile value at any of the enabled levels of the profile option.

Example of Profile Option Hierarchy

The following table shows an example of setting the currency profile option at different levels.
For this example, there are two users, John and Lisa. For John, the user-level profile value currency is set to US Dollar. If the Currency profile option is enabled only at the site level, both John and Lisa would see Euro as the default currency. If the profile option is enabled at the user level, users having a different currency set as their currency profile value would see only that currency. In this case, John would see US Dollar as the default currency. If the Currency profile option is enabled at the user level and there is no user level currency defined, the site level setting takes effect. When both site and user levels are enabled, the value for the user level takes precedence over the site level value.

Profile Options and Related General Preferences: How They Work Together

The general preferences such as Language, Territory, or Date Format that you access from the global header have corresponding predefined profile options.

General Preferences
When users define their preferred Date Format, Language, or Currency, they are setting the value of a profile option at the user level.

Profile Options
When users don't specify anything as their preferences, the Site level profile option takes effect.
Define Implementation Users

Defining Setup Users: Overview

Among the initial activities when setting up Oracle Sales Cloud is the creation of users who perform setup tasks. Oracle creates an initial user for you when your Oracle Sales Cloud environment is provisioned. This initial user is configured to perform security tasks, which include the creation of other users and the granting of additional privileges. The initial user can create other users, known as setup users, to help with application setup. The setup user performs the tasks in Oracle Sales Cloud implementation projects, sets up enterprise structures, creates application users, and administers security.

Use the Manage Users task in the Setup and Maintenance work area to create setup users. For information about creating setup users, see Oracle Sales Cloud Getting Started with Your Sales Implementation guide.

Related Topics

- Oracle Sales Cloud Getting Started with Your Sales Implementation guide
- Oracle Sales Cloud Securing Oracle Sales guide
5 Define Geographies

Overview

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, in the hierarchy of 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 format 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 to include 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

This topic describes geography structures and the tasks you can perform using geography structures.

A geography structure is a hierarchical grouping of geography types for a country. The following table describes the geography structure for the United States.
Define Geographies

<table>
<thead>
<tr>
<th>Level</th>
<th>Geography Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>State</td>
</tr>
<tr>
<td>2</td>
<td>County</td>
</tr>
<tr>
<td>3</td>
<td>City</td>
</tr>
<tr>
<td>4</td>
<td>Postal Code</td>
</tr>
</tbody>
</table>

You can use the geography structure to relate geography types for a country and define geography types for a country.

Relate Geography Types for a Country

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 geography type Country is implicitly at the highest level of the geography structure with level as 1. The subsequent geography types that you add after country are numbered in sequence.

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. To quickly create country structure, you can copy a structure from another country and modify the geography types for the country.

Define Geography Types for a Country

You can use any of the master reference geography types to create your geography structure. If required, you can create a geography type, before adding it to the country structure. Each geography type is added at a lower level to the current lowest level.

⚠️ Note: You cannot delete geography types that have associated geography data. You can only delete the lowest level geography type of the country structure.

You can use a geography type that you create within the country structure for other country structures as well.

Geography Hierarchy: Explained

This topic describes geography hierarchy and various aspects of geography hierarchy.

Geography hierarchy is a data model that creates conceptual parent-child relationships between geographies. At the highest level of the geography hierarchy is country, which is the parent, and the hierarchy contains several child geographies. The following table shows sample parent-child relationships in a geography.

<table>
<thead>
<tr>
<th>California</th>
<th>Parent of San Mateo county</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Mateo County</td>
<td>Parent of Redwood City</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Redwood City</th>
<th>Parent of 94065</th>
</tr>
</thead>
</table>

| 94065 | Child |

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Define Geographies
When you enter just 94065, the application determines that the postal code is in California and the corresponding city is Redwood City.

The application uses geography hierarchy information to facilitate business processes that rely on geography information, such as, tax calculation, order sourcing rules, and sales territory definition. The geography hierarchy information is centrally located and shared among other application offerings.

The geography hierarchy includes:

- **Geography**: Geography is a physical space with boundaries that is a defined instance of a geography type, such as country, state, province or city. For example, San Jose is a geography of the City geography type.
- **Geography type**: Geography types are divisional grouping of user defined geographies, for example, Continent, Country Regions, and Tax Regions.
- **Geography usage**: Geography usage indicates how a geography type or geography is used in the application.
- **Master reference geography hierarchy**: The geography hierarchy data is considered the single source of reference for all geography related data such as geography types and geographies.
- **User defined zones**: User defined zones are a collection of geographical data, created from master reference data for a specific purpose. For example, while the territory zones are collections of master reference geographies ordered with a hierarchy, the tax and shipping zones are 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.

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

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. If the setup for master geography data is incomplete, then the geography data is either not imported or created. As a result, the list of values for the address attribute does not list any geography data.

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 can’t 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 must set up geography validation for those geography elements that you plan to use in your sales territories. Setting up validation also helps users fill in missing address information, and validate addresses during entry. For example, you can have users select states or other address elements from lists to ensure accuracy during entry, and you can have the application fill in missing values. For example, when the user enters a Postal Code, the application can retrieve the city and state.

You can specify whether a geography type will be included in geography validation. 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.

You need to verify that the default mapping between Geography Type and Map to Attribute is valid in the Geography Mapping and Validation region and update it if required when you define geography validation. Oracle recommends that you use the following valid mapping for the countries that GBG | Loqate supports:

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Country Code</th>
<th>Geography Type</th>
<th>Map to Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>AU</td>
<td>Country</td>
<td>Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State</td>
<td>State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City</td>
<td>City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postcode</td>
<td>Postal code</td>
</tr>
<tr>
<td>Austria</td>
<td>AT</td>
<td>Country</td>
<td>Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bundensland</td>
<td>State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bezirk</td>
<td>County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gemeinde</td>
<td>City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postal code</td>
<td>Postal code</td>
</tr>
<tr>
<td>Belgium</td>
<td>BE</td>
<td>Country</td>
<td>Country</td>
</tr>
</tbody>
</table>
## Define Geographies

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Country Code</th>
<th>Geography Type</th>
<th>Map to Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>BR</td>
<td>• Gewest</td>
<td>• Additional address attribute 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provincie</td>
<td>• Province</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gemeente</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Postcode</td>
<td>• Postal code</td>
</tr>
<tr>
<td>Canada</td>
<td>CA</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Province</td>
<td>• Province</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• City</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Postal Code</td>
<td>• Postal code</td>
</tr>
<tr>
<td>Chile</td>
<td>CL</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Región</td>
<td>• Additional address attribute 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provincia</td>
<td>• Province</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Comuna</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Código Postal</td>
<td>• Postal code</td>
</tr>
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<td>• Country</td>
<td>• Country</td>
</tr>
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<td></td>
<td>• Region</td>
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<td></td>
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<td>• State</td>
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<td></td>
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<td>• Commune</td>
<td>• City</td>
</tr>
<tr>
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<td>• Additional address attribute 2</td>
</tr>
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<td></td>
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<td>• Postcode</td>
<td>• Postal code</td>
</tr>
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<td>DE</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bundesland</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bezirk</td>
<td>• County</td>
</tr>
<tr>
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<td></td>
<td>• Stadt</td>
<td>• City</td>
</tr>
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<td></td>
<td>• PLZ</td>
<td>• Postal code</td>
</tr>
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<td>GB</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• County</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Posttown</td>
<td>• City</td>
</tr>
<tr>
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<td></td>
<td>• Postcode</td>
<td>• Postal code</td>
</tr>
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<td>• Country</td>
</tr>
<tr>
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<td></td>
<td>• Regione</td>
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</tr>
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<td>• Province</td>
</tr>
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<td>• Comune</td>
<td>• City</td>
</tr>
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<td>• Postal code</td>
</tr>
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<td>• Country</td>
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<td></td>
<td></td>
<td>• Prefecture</td>
<td>• State</td>
</tr>
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<td></td>
<td></td>
<td>• City</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>• Postal code</td>
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<td>• Country</td>
</tr>
<tr>
<td>Country Name</td>
<td>Country Code</td>
<td>Geography Type</td>
<td>Map to Attribute</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>------------------------------</td>
<td>---------------------------------------------</td>
</tr>
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</tr>
<tr>
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<td></td>
<td>• Provincie</td>
<td>• Province</td>
</tr>
<tr>
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<td></td>
<td>• Gemeente</td>
<td>• County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Settlement</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Postcode</td>
<td>• Postal code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• County</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provincie</td>
<td>• Province</td>
</tr>
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<td></td>
<td>• County</td>
<td>• Postal code</td>
</tr>
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<td>Peru</td>
<td>PE</td>
<td>• Región</td>
<td>• Country</td>
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<td>• Provincia</td>
<td>• Province</td>
</tr>
<tr>
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<td>• Distrito</td>
<td>• City</td>
</tr>
<tr>
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<td></td>
<td>• Código Postal</td>
<td>• Postal code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provincia</td>
<td>• Additional address attribute 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Distrito</td>
<td>• City</td>
</tr>
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<td></td>
<td></td>
<td>• Código Postal</td>
<td>• Postal code</td>
</tr>
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<td>PT</td>
<td>• Country</td>
<td>• Country</td>
</tr>
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<td></td>
<td></td>
<td>• District</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Municipality</td>
<td>• County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Parish</td>
<td>• City</td>
</tr>
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<td></td>
<td>• Postcode</td>
<td>• Postal code</td>
</tr>
<tr>
<td>Qatar</td>
<td>QA</td>
<td>• Country</td>
<td>• Country</td>
</tr>
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<td></td>
<td></td>
<td>• Municipality</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Zones</td>
<td>• City</td>
</tr>
<tr>
<td>Spain</td>
<td>ES</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
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<td>• Autonomia</td>
<td>• Additional address attribute 1</td>
</tr>
<tr>
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<td></td>
<td>• Provincia</td>
<td>• Province</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Municipio</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Codigo Postal</td>
<td>• Postal code</td>
</tr>
<tr>
<td>Sweden</td>
<td>SE</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lan</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kommun</td>
<td>• County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• By</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Postnr</td>
<td>• Postal code</td>
</tr>
<tr>
<td>Switzerland</td>
<td>CH</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kanton</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bezirk</td>
<td>• County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gemeinde</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• PLZ</td>
<td>• Postal code</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>AE</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Emirate</td>
<td>• State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Municipality</td>
<td>• City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Area</td>
<td>• Additional Address Attribute 2</td>
</tr>
<tr>
<td>United States</td>
<td>US</td>
<td>• Country</td>
<td>• Country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• State</td>
<td>• State</td>
</tr>
</tbody>
</table>
Implementing Customer Data Management

Chapter 5
Define Geographies

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Country Code</th>
<th>Geography Type</th>
<th>Map to Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>County</td>
<td>County</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City</td>
<td>City</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zip Code</td>
<td>Postal code</td>
</tr>
</tbody>
</table>

**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.

The Geography Dimension value in territories is derived from sell-to addresses of sales accounts. To use geography dimensions in territories, you must validate the geography elements in the addresses, such as state, city, and postal code. You can validate the address by enabling geography validation for each country using the Manage Geographies task. Perform the following in the Manage Geographies task:

- Enable at least one level in the geography hierarchy for geography validation.
- Enable geography validation for all geography levels that you intend to use for territory definition for each country.
- If needed, 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 set geography validation control to **Error** in the Manage Geography Validation page. This ensures that users can only use valid geography elements in addresses.

**Note:** If you have already created addresses before setting up geography validation for a country, you must enable geography validation and then execute the Run Maintain Geography Name Referencing task for that country. This validates all your geography elements.
Managing Geography Structures, Hierarchies, and Validation: Worked Example

This example shows how to configure the geography structure, hierarchy, and validation for a country geography, using the United Kingdom country geography as an illustration.

The following table summarizes the key decisions for this scenario.

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

Defining the Geography Structure

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

To create the geography hierarchy for United Kingdom, 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. In the Geography Hierarchy section, click United Kingdom to highlight the table row, and click **Create**.
4. In the **Create County** page, Primary and Alternate Names section, enter Berkshire in the **Name** field.
5. Click **Save and Close**.
6. In the Geography Hierarchy section, click Berkshire to highlight the table row, and click **Create**.
7. In the **Create Post Town** page, Primary and Alternate Names section, enter Reading in the **Name** field.
8. Click Save and Close.

### Defining the Geography Validations

To specify the geography validations for the geography types you added to United Kingdom, define the geography mapping and validation for the United Kingdom default address style format. Then, 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. In the 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. Select the **Enable List of Values** and **Geography Validation** options.
5. For the Post Town geography type, click the **City** list item in the **Map to Attribute** field.
6. Select the **Geography Validation** option.
7. In the Geography Validation Control section, select **Error** in the **Geography Validation Level for Country** list.
8. Click **Save and Close**.

### Managing Territory Geography Splits: Procedure

To manage territory geography level splits, you must group territory geographies into group zones. Grouping the territory geographies involves two steps, selecting the geography level based on which you need grouping and initiating the grouping.

#### Selecting the Geography Level for Grouping

Complete the following steps to select the geography level based on which you want to create the group zones:

1. Sign in as a set up user such as Application Implementation Consultant.
2. Navigate to the Setup and Maintenance > Manage Geographies.
3. Search for the country for which you want to enable territory geography level grouping.
4. Click **Structure Defined**. Manage Geography Structure page appears.
5. Select the **Subject to Grouping** check box corresponding to the geography type level for which you want to enable grouping.
   You must select the geography level that suits your business requirements. For example, if your product delivery is based on postal code, and your territory geographies do not have higher levels of master geographies such as counties and cities, then you may have postal code splits. In this case you must select postal code as the geography type level for grouping.

   ✍️ **Note:** You can enable grouping for only one level at a time.

6. Click **Save and Close**.

#### Initiating Grouping

Complete the following steps to initiate grouping:

1. Navigate to the setup and maintenance > Manage Territory Geographies task.
2. Click **Initiate Grouping**.
3. Click **OK** in response to the warning message and confirm the process.

**Note:** You cannot automatically un-group the grouped territory geographies. You can manually undo the grouping process by recreating territory geography hierarchy either through the UI or import process.

When the grouping is complete, the geography level that you selected for grouping appears as an expandable Group Zone as shown in the following figure.

4. Click **Save and Close**.

**Territory Geography Grouping Process**

This topic describes how we can overcome the problem of territory geography splits by grouping them into group zones.

You do a territory geography grouping when any of your territory geography levels has multiple splits. A territory geography splits occur when the lower level master geographies are added to territory geography hierarchy, while skipping the higher level master geographies. This may cause multiple occurrences of the lower geography level members in a territory geography hierarchy.

For example, postal code split happens when a postal code overlaps across many master geography levels such as cities and counties. Suppose that the business firm Vision Corp. delivers its product according to the postal codes. If counties and cities are not included in the territory geography hierarchy of Vision Corp., then the end user can see the multiple occurrences of the postal code 97229.

When there is a territory geography level split, and if you want to group the split geographies, first you must specify the master geography level for which you want the grouping to be performed, then initiate grouping. When grouping is performed, all the splits of the selected master geography level get grouped under a new group zone. In the previous example, if you select postal code in the master geographies as the level for grouping and initiate the grouping process, then the 12 postal code splits for the postal code 97229 gets grouped together under one group zone named 97229. So, the Territory Manager user can define territories on a clean list of postal codes or their ranges, although some of those postal codes would in fact be the groupings of the postal code splits. The grouped splits are hidden for the Territory Manager user.

**Managing Geography Mismatches**

This topic employs a couple of use cases to illustrate the best practices for setting up Master Reference Geographies for Oracle Cloud Applications customers using the Oracle Social Data and Insight Cloud Service for data enrichment and the Address Verification Cloud Service for address verification.

When you perform the real-time enrichment of accounts or contacts using the Oracle Social Data and Insight Cloud Service, if there is a geography data mismatch between the predefined master geography data and the Dun and Bradstreet (D&B) data, then the Service enriches the accounts and contacts data but you cannot edit or save the enriched data unless the master geography data mismatches are resolved. In addition, you can verify the enriched address using the Address Verification
Cloud Service, however, in case of mismatches between Address Verification Cloud Service (GBG | Loqate) and predefined master geography data you cannot save the verified address.

The second use case describes the setup required to enable address verification and to avoid data conflicts between the Address Verification Cloud Service and master reference geography data.

Use Case 1
You are an Oracle Cloud Applications customer using master reference geographies for territory assignments or tax calculation and have purchased Oracle Social Data and Insight Cloud Service for data enrichment as well as the Address Verification Cloud Service. In this case, while the Nokia geography reference data is configured as master geography, Tax calculation is being done using Vertex master geography data. Also, address validation is enabled based on the customer’s requirement.

**Best Practice**: Review geography mapping for the countries where you do business. If the geography mapping for a specific country is not mapped according to the country-specific address attributes, update the mapping. Oracle recommends performing enrichment before verifying address.

Suppose that you are doing real time enrichment of account or contact. If there is a geography data mismatch between the predefined master geography and the D&B data, the Oracle Social Data and Insight Cloud Service still enriches the accounts and contacts data but cannot edit or save the enriched account or contact unless the master geography data mismatches are resolved. However, you can verify the enriched address using the address verification cloud service.

To save a verified address that has master geography data mismatch, you must add alternative names for the mismatched hierarchy elements in master geography. The following are the steps to add alternative name for the mismatched hierarchy element:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Enterprise Profile
   - Task: Manage Geographies
2. On the Manage Geographies page, search for the country by the name or country code, for example US.
3. Click the Go to Task button in the Hierarchy Defined column. The Manage Geographies Hierarchy page for the particular country appears.
4. Highlight the mismatched hierarchy element, for example California State, and click the Edit icon.
5. Click the Add icon on the Edit page.
6. Add an alternative name CA for the California state geography element.
7. Click Save and Close

Once the alternative name is added for the mismatched hierarchy element in master geography, you can save the enriched address.

Use Case 2
You are an Oracle Cloud Applications customer who does not use geographies for territory assignment or tax calculation and has purchased Oracle Social Data and Insight Cloud Service for data enrichment and the Address Verification Cloud Service for address verification. To enable address verification and to avoid data conflicts between the Address Verification Cloud Service and master reference geography data you must do the following setups:

- Deselect the Enable List of Values option in the Geography Mapping and Validation region to avoid Address Verification Cloud Service data conflicts with master reference geography data. By deselecting this option you can avoid any UI level validation against master geographies while adding address.
• Select Geography Validation Level for Country as No validation to verify address data by Address Verification Cloud Service.

Perform the following steps on the Manage Geography Validation page to enable address verification and to avoid data conflicts between the Address Verification Cloud Service and master reference geography data:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Enterprise Profile
   - Task: Manage Geographies

2. On the Manage Geographies page, search for the country by the name or country code, for example US.
3. Click the Go to Task button in the Validation Defined column. The Manage Geography Validation page appears.
4. Deselect the Enable List of Values check boxes for all the geography attributes to avoid any UI level validation against master geographies while entering the addresses. If the Enable List of Values check boxes are selected then, in case of data conflicts, Geography Naming References records will not be created.

Note: If any of the Geography Types listed is not applicable to the selected country’s territory structure, then you must deselect the geography validation for that type.

If you are planning to create territories based on a particular Geography Type, such as County, then you must deselect all the Geography Validation levels under that Geography Type (in this case City and Postal Code) based on which you want to create the territory.

Tip: Review the Address Style Formats that are selected on the Manage Geography Validation page. The review is required because on the Account or Contact Simplified UI page, address attributes are displayed based on the address formats and verified or enriched addresses are saved in Oracle Applications Cloud based on the selected address formats.

Import Geographies and Zones

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.

Note: You must use File-Based data Import in a cloud implementation because you cannot populate the interface tables directly in a cloud implementation.

Consider the following when importing geographies:

- Oracle-licensed geography reference data
- File-based import option
- Geography loader process option
• Import object entity, interface table, and destination tables

Oracle-Licensed Geography Reference Data

Oracle Applications Cloud includes third-party master geography data for multiple countries that can be imported. You can import Oracle-licensed data from GBG | Loqate or Nokia, for those countries where the data is available, such as the U.S. You can import geography data using the Manage Geographies task. Search for the country, and select Import Geography Data from the Actions menu. If the licensed data is not available or already set up for a particular country, then the Import Geography Data action is disabled.

Oracle licenses geography data that you can import, at no additional cost, into Oracle Applications Cloud. Oracle is in the process of changing suppliers for its licensed data from Nokia to GBG | Loqate. GBG | Loqate offers more complete and more accurate data for more than 240 countries. During the transition, Oracle is making available a growing subset of the GBG | Loqate country data. New customers must import the GBG | Loqate data for countries where data is available, and can import the Nokia data for the rest. When Oracle completes the transition, Oracle customers can either update their geography data to GBG | Loqate or continue using Nokia. Oracle will no longer update Nokia data for countries that are available through GBG | Loqate. The countries available from GBG | Loqate are listed in the GBG | Loqate Geography Reference Data: Explained topic. The countries available from Nokia are listed in the Nokia Geography Reference Data: Explained topic.

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.

To access the File-Based Data Import functionality, in the Setup and Maintenance work area, go to the following:

• Offering: Customer Data Management
• Functional Area: Enterprise Profile
• Task: Manage Import Activities

For more information, see the Importing Geographies chapter in the Oracle Sales Cloud Understanding File-Based Data Import and Export guide.

Geography Loader Process Option

Populate the interface table with your import data, then to schedule the import of data from the interface table to the destination table, in the Setup and Maintenance work area, use the following:

• Offering: Customer Data Management
• Functional Area: Enterprise Profile
• Task: Run Geography Loader

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, then, in the Setup and Maintenance work area, use the following to export the information:

• Offering: Customer Data Management
• Functional Area: Trading Community Foundation
Task: Schedule Export Processes

The following table lists the object entity, the interface table, the destination tables, and the resulting application object.

<table>
<thead>
<tr>
<th>File-Based Import Entities</th>
<th>Interface Tables</th>
<th>Destination Tables</th>
<th>Application Object</th>
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</tr>
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</table>

Related Topics

- Implementing Customer Data Management Cloud: Overview

Specifying the Geography Data Supplier: Procedure

If you are importing geography data licensed by Oracle, and GBG | Loqate geography data exists for the country where you do business, then set the system profile option DaaS GBG | Loqate Data Import Enabled (ORA_HZ_ENABLE_DAAS_LOQATE) to Yes. By default, the system profile is set to No and the application imports Nokia data. If you are doing business in multiple countries, and not all the countries are yet available from GBG | Loqate, then you can download geography data from both suppliers by changing the value of this system profile, but you can download only one data set for each country.

To specify the geography data supplier:

1. Open the Manage Administrator Profile Values task from the implementation project or after searching for the task by name in the Setup and Maintenance work area.
   The Manage Administrator Profile Values page appears.
2. In the Profile Option Code field located in the Search: Profile Option region, enter ORA_HZ_ENABLE_DAAS_LOQATE.
3. Click Search.
4. With the profile option selected in the search results, select Yes from the Profile Value list to import GBG | Loqate data. A setting of No imports Nokia data.
5. Click Save and Close.

GBG | Loqate Geography Reference Data: Explained

Oracle Applications Cloud provides third-party GBG | Loqate master geography data for import. The following table lists the countries for which the GBG | Loqate master geography data is available for import.

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### Nokia Geography Reference Data: Explained

Oracle Applications Cloud provides third-party Nokia master geography data for import. The following table lists the countries for which the Nokia master geography data is available for import.

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*Oracle Sales Cloud*

*Implementing Customer Data Management*

*Chapter 5*

*Define Geographies*
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</tr>
<tr>
<td>United Kingdom</td>
<td>GB</td>
</tr>
<tr>
<td>United States</td>
<td>US</td>
</tr>
<tr>
<td>Uruguay</td>
<td>UY</td>
</tr>
<tr>
<td>Holy See (Vatican City State)</td>
<td>VA</td>
</tr>
</tbody>
</table>

Replacing Existing Master Geography Data with Revised Oracle-Licensed Geography Data: Procedure

You must import and set up reference geography data for the countries where you do business. Using the Oracle-licensed geography reference data, you no longer have to source geography data from a third party. You can import Oracle-licensed data from GBG | Loqate or Nokia, including the country structure and hierarchy information, either to create a new geography setup or replace your existing geography data.
This topic describes the steps to replace your existing master geography data with the revised Oracle-licensed geography data.

Creating an Export File of All Territories
In case you have implemented Customer Data Management along with the sales functionality, you must export all territories before deleting the master geography data because removing the master geography data invalidates the territory definitions that are based on the Geography dimension. You can either export the definitions of all territories to a file or make manual corrections. If there are a large number of territories, export the territories definition to a file for the territories import process. However, if there are very few affected territories, then you can choose to either export the territories definition to a file or make corrections manually.

This procedure is applicable only if there are territories defined using the Geography dimension.

Perform the following steps to create an export file of all territories.

1. From the Territories and Quotas work area, click View Active Territories in the Tasks pane.
2. In the View Active Territories page, select the territory at the highest level.
3. Click the Actions list, and select Export, and then Export Selected Territory Hierarchy.
4. In the Warning dialog box, click OK.
5. Click the Actions list and select Export, and then View Export Status.
6. Review the status of the export job and verify if it has completed successfully.
7. In the Exported Data File column, click the .zip file against your export job, and click Save. All the territories are exported to a compressed file on your system.
8. Click OK.
9. Click Done in the View Active Territories page.

Deleting the Territory Geography Data
A territory definition has references to the territory geography data and master geography data. Since territory geography data is based on the master geography data, in case you have implemented Customer Data Management along with the sales functionality, you must delete the territory geography data prior to deleting the master geography data. When you delete the territory geography data, all territories that are defined using geography dimension become invalid.

This procedure is applicable only if territory geographies are defined.

Perform the following steps to delete the territory geography data.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Sales
   - Functional Area: Territories
   - Task: Manage Territory Geographies
2. On the Manage Territory Geographies page, click View All Hierarchies.
3. Select the highest level node for the country for which you want to replace the master geography data and click the Delete icon.
4. In the Warning dialog box, click OK.
5. In the Confirmation dialog box, click OK. The parent node of the territory geography data and its children are deleted.
6. Repeat steps 3 to 5 to delete all the higher nodes in the territory geography data.
7. Click Save and Close.

The Territory Management application retains a copy of the dimension members referenced in the territory definitions. This copy is updated when you trigger the Load and Activate process from the Enable Dimensions and Metrics task. Therefore, although the territory geography data is deleted, the territory definitions may appear to remain valid.
Deleting the Master Geography Data

To delete the master geography data for a country, you must create a support request with proper justification. Note that when the master geography data is deleted, the geography and its children are deleted and all the related territory, tax, and shipping zone references become invalid. So, you must back up this master geography data before deleting the master geography data.

Importing Oracle-Licensed Geography Reference Data

Use this procedure to import geography reference data licensed by Oracle. If the country data you want to import is not available, then the Import Geography Data action is disabled.

The geography data is provided by GBG | Loqate or Nokia and is third-party content. As per Oracle policy, this software and documentation may provide access to or information about content and services from third parties. Oracle and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content and services. Oracle and its affiliates are not responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Perform the following steps to import Oracle-licensed geography reference data.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Enterprise Profile
   - Task: Manage Geographies

2. On the Manage Geographies page, enter either the country name or the two-letter ISO code (for example, US), and click Search.

3. Select the country in the search results.

4. Click the Actions list, and select Import Geography Data.

5. In the Warning dialog box, click OK.

6. In the Confirmation dialog box, click OK.

The import of larger countries may require several hours to complete.

You can track the progress of the import process by selecting Scheduled Processes from the Navigator.

Note: To access the Scheduled Processes work area, you must be signed in as a user with the Employee abstract role. The initial user does not have this role assigned, but the other users you created do.

After the import is complete, you can search for the country again in the Manage Geographies page. Check marks now appear in the Structure Defined and Hierarchy Defined columns indicating the import completed successfully.

Next, click the Validation Defined icon to define the validations, enable List of Values, and choose address style format for a country as set up before. For more information, see the "Geography Validation: Explained" topic.

The Geocoding Defined and Address Cleansing Defined columns are used for additional features which you must license from Oracle and set up separately.

- Geocoding makes it possible to display customers in the vicinity of a mobile address. You set up Geocoding Enabled for those countries where you are using Around Me functionality in Sales Cloud Mobile.
- Cleansing makes it possible to validate addresses down to the street level.
Running the Geography Name Referencing Process

The Geography Name Referencing (GNR) process validates address elements in location tables, such as HZ_LOCATIONS, against the master geography data.

Perform the following steps to run the GNR process.

1. Navigate to Tools > Scheduled Processes work area.
3. Click the Name list and search for Validate Geographies Against Master Geographies, and then click OK.
4. Click OK in the Schedule New Process dialog box.
5. In the Process Details dialog box, enter the following details:
   - Location Table Name: HZ_LOCATIONS
   - Run Type: ALL
   - Usage Code: GEOGRAPHY
6. Enter the country code in the Country Code field.
7. Click Submit.
8. In the Confirmation dialog box, click OK.
9. Click Close.
10. In the Scheduled Processes page, click the Refresh icon.
11. Verify if the status of the process has completed successfully.

Recreating and Loading the Territory Geography Data

In case you have implemented Customer Data Management along with the sales functionality, you can recreate the territory geography data, after the master geography data is imported, using either of the following methods:

- Import process: If you created the original territory geography data using the import process, then use the same import file to recreate the territory geography structure. For more information about importing the territory geography data using the import file, see "Importing Territory Geography Hierarchies Using File-Based Data Import: Quick Start" in the Oracle Sales Cloud Understanding File-Based Data Import and Export guide.
- Manual creation process: You can manually recreate the territory geography data structures, as they existed before their deletion, using the Manage Territory Geographies task. For more information about creating zones and adding geographies to a zone, see "Managing Territory Geographies: Worked Example" topic.

After you have recreated the territory geography data, perform the following steps to load the data.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Sales
   - Functional Area: Territories
   - Task: Enable Dimensions and Metrics
2. On the Enable Dimensions and Metrics page, click the Actions list, and select Load and Activate. The process loads the territory geography data to make dimension members available for selection when defining territories.
3. In the Confirmation dialog box, click OK.
4. Click Done.

Restoring the Invalid Territory Definitions

After recreating the territory geography hierarchies and running the Load and Activate option from the Enable Dimensions and Metrics task, the geography dimensions are populated with the new geography members. The geography members
in the territory appear as invalid because your territories still reference the old copies of the dimension members that were deleted. The new members are not referenced automatically by the territories. You must re-reference the territory definitions from the old geography dimension members to the new ones.

You can restore the invalid territory definitions by either importing the previously created export file or making manual corrections to the territories.

To restore valid territory definitions using territories import:

1. Open the export file you saved in the "Creating an Export File of All Territories" step. The compressed file contains four CSV files.
2. Open TERR_HEADER.CSV file.
3. Enter REPLACE in the Action column for all territories that are based on geography dimension.
4. Save the file in CSV format and compress it together with three other CSV files.
5. From the Territories and Quotas work area, click View Active Territories in the Tasks pane.
6. Click the Actions list, and select Import to Proposal, and then Import Territories.
7. Select the newly created compressed file and click OK.
8. Click the Actions list and select Import to Proposal, and then View Import Status.
9. Review the status of the export job and verify if it has completed successfully.
10. Click OK.
11. From the Tasks pane, click Manage Territory Proposals.
12. In the Manage Territory Proposals page, on the Current Territory Proposals table, search for the proposal with your import file name.
13. Click the import file name to open the territory proposal.
14. Click Edit Coverage to verify that the territory definitions are valid.
15. Verify that there are no values listed as invalid in the Selected Dimension Members section.
16. Click Save and Close.
17. Click Activate. The territory proposal of your import file is activated.

To restore valid territory definitions through manual corrections:

1. From the Territories and Quotas work area, click Manage Territory Proposals in the Tasks pane.
2. In the Manage Territory Proposals page, click the Create icon.
3. In the Create Territory Proposals dialog box, enter a name and click Save and View.
4. In the Territory Proposals page, add all the territories with the Geography dimension value other than the value "Any" to the proposal.
5. Select a territory and click Edit Coverage.
6. In the Edit Coverage page, select Geography from the Dimensions list. The invalid dimension members are displayed in the Selected Dimension Members pane.
7. Expand the values in the Available Dimension Members section or search for the member that has the same name as the one marked invalid in the Selected Dimension Members pane.
8. Select one or more new geography dimension members from Available Dimension Members pane and click Add icon to the Selected Dimension Members pane.
9. Click the Remove icon to remove the invalid members from the Selected Dimension Members pane.
10. Click Save and Close.
11. Repeat steps 4 to 10 for all territories that were based on Geography dimension.
12. Click Activate. After the activation process is complete, your territory definitions are valid again and are referencing to the new geography data.

Although this method is always applicable, it is most appropriate when you have to restore territory definitions for a smaller number of territories.
To run the batch assignment process for opportunities:

1. From Navigator, click **Scheduled Processes**.
2. In the Schedule Processes page, click **Schedule New Process**.
3. In the Schedule New Process dialog box, search for the **Revenue Territory Based Assignment** process and select it.
4. Click **OK**.
5. In the Process Details dialog box, enter **OpenOpportunitiesByCreationDate** in the View Criteria Name field. This selects all revenue lines belonging to open opportunities that were created in the last ‘X’ days.
6. Enter **BindOptyCreationDateFrom** followed by the date.
   For example, if BindOptyCreationDateFrom=2014-01-01, then all open opportunities which were created between 1st January 2014 till the current date, are processed.
7. Click **Submit** to schedule the process.
8. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
9. Click **Close**.
10. In the Schedule Processes page, click the **Refresh** icon.
11. Review the status of the process job and verify if it has completed successfully.

**Note:** Review a small subset of the open opportunities to confirm that the territory assignment is as expected.

To run the batch assignment process for sales accounts:

1. Ensure that the **ZCA_SA_AUTO_ASSIGN_ON_CREATE** and **ZCA_SA_AUTO_ASSIGN_ON_UPDATE** profile options are set to Yes in the Manage Customer Center Profile Options task.
2. From Navigator, click **Customers**.
3. In the Customers page, click **Create Account**.
4. In the Create Account page, enter a name and address of the sales account, and select the **Address is sell to** check box.
5. Click **Save and Close**.
6. From Navigator, click **Customers**.
7. In the Search pane, search for the name of the sales account you created and select it.
8. In the section Customer Information, select **Sales Account Team**. The details of the sales account and territories associated with the sales account are displayed.
   This indicates that the sales account was created successfully and the batch assignment was run automatically to assign the matching territories to the sales account.

To run the batch assignment process manually from the Scheduled Processes page, perform the following steps.

1. From Navigator, click **Scheduled Processes**.
2. In the Schedule Processes page, click **Schedule New Process**.
3. In the Schedule New Process dialog box, search for the **Request Sales Account Assignments** process and select it.
4. Click **OK**.
5. Enter **SalesAccount_Work_Object** in the Work Object Code field and **SalesAccountTerritory_Candidate_Object** in the Candidate Object Code field.
6. Select **Territory** in the Assignment Mode list.
7. Enter **AllSalesAccountsVC** in the View Criteria Name field. This selects all sales accounts.
8. Click **Submit** to schedule the process.
9. In the Confirmation dialog box, make a note of the process identifier for monitoring the process, and click **OK**.
10. Click **Close**.
11. In the Schedule Processes page, click the **Refresh** icon.
12. Review the status of the process job and verify if it has completed successfully.

**Note:** Review a small subset of the accounts to confirm that the territory assignment is as expected.

**Related Topics**
- Managing Territory Geographies: Worked Example

### Creating Countries: Procedure

This procedure lists the steps to create countries in Oracle Cloud Applications.

In Oracle Cloud Applications, countries are seeded. If you are unable to find a specific country in the Manage Geographies page, then you can add it to the application.

**Note:** Oracle Cloud Applications provides support for GBG | Loqate or Nokia geography data for countries. For countries where GBG | Loqate or Nokia geography data is not available, you can purchase the geography data from a third-party data provider and load it into the application using File-Based Data Import. For more information, see the Importing Geographies chapter in the Oracle Sales Cloud Understanding File-Based Data Import and Export guide. If countries are not available in the application, then use the procedure outlined in this topic to create them.

Perform the following steps to create a new country.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Application Extensions
   - Task: Manage Territories
2. On the Manage Territories page, click the **New** icon.
3. Enter the following details:
   - Territory Code: Enter a unique code for the territory.
   - Territory Name: Enter a unique name for the territory.
   - Description: Enter a description for the territory.
4. Click **Save and Close**.

**Note:** After you have added a new country in the application, if you want to import the geography data for that country, then you must perform Step 5 to 10.

5. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Enterprise Profile
   - Task: Manage Geographies
6. On the Manage Geographies page, click **Actions > Create Country**.
7. In the Create Country dialog box, select the name of the country and click **Save**.
8. Click **Done**.

Note: You can now import the geography data for the newly created country using GBG | Loqate or Nokia geography data available in the application. In case geography data for your country is not available from GBG | Loqate or Nokia, you can purchase the geography data from a third-party data provider and import it using File-Based Import.

### Geography Import Objects: How They Work Together

This topic describes the Geography import object. You use the Geography import object to import geography information.

This topic introduces the following:

- Target objects for the Geography import object
- Target import object attributes
- Reference guide files for target import object attributes

### Geography Target Import Objects

You can use the Geography import object to import geography hierarchy information to create or update the geography data of a country. To map the source data in your import file to the target attributes in the application, you must understand how the target objects are related and what attributes are included in each target object.

The target import objects in the Geography import object contain information about the geography hierarchy. When updating an existing geography, you must provide the parent reference information of the existing geography, which connects the geography to the country of which it is a part.

Use the ImpGeography target import object to create and update geography information.

Note: Before you import geography data for a country, you must define the country’s geography structure.

### Target Import Object Attributes

You must compare the attributes that you want to import with the target object attributes that are available and with their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use a reference file. See the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/en/cloud/saas/index.html). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. A reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or prerequisite setup tasks that are required.

To import your source file data, you define a mapping between your source file data and the combination of the target object and target object attribute. You can predefine and manage import mappings using the Manage File Import Mappings task, or you can define the mapping when you define the import activity using the Manage File Import Activities task. Both tasks are available in the Setup and Maintenance work area.

Note: If any of the attributes you want to import do not have an equivalent target object attribute, then review the Application Composer extensibility features for geography.
Reference Files for Target Import Object Attributes

To access the reference guide files for the geography's target import objects, see the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/cloud/latest/salescs_gs/docs.htm). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. For detailed information on importing geographies using file-based import, refer to Document No. 1481758.1, Importing Master Reference Geography Data, on the Oracle Support site.

The following table lists the reference file for the ImpGeography target import object.

<table>
<thead>
<tr>
<th>Target Import Object</th>
<th>Description</th>
<th>Attribute Reference File Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeography</td>
<td>Contains information that captures a country's geography hierarchy details, such as geography type, geography code, and so on.</td>
<td>HZ_IMP_GEOGRAPHIES_T_Reference</td>
</tr>
</tbody>
</table>

**Related Topics**

- File Import: How It Works
- Getting Started with File-Based Import: Documentation Overview

Importing Geographies Using File-Based Import: Explained

This topic explains how to prepare and import geography data from an external data source using the File-Based Data Import feature. A geography is any region with a boundary around it, regardless of its size. It might be a state, a country, a city, a county, or a ward. You must create or import geographies before you can associate them with company-specific zones and addresses.

**Note:** The application ships with third-party master geography data for multiple countries that can be imported. You can import Oracle-licensed data from GBG | Loqate or Nokia, for those countries where the data is available, such as the U.S. You can import geography data using the Manage Geographies task. Search for the country, and select Import Geography Data from the Actions menu. If the licensed data is not available for a particular country, then the Import Geography Data action is disabled. For more information, see Replacing Existing Master Geography Data with Revised Oracle-Licensed Geography Data: Procedure. If GBG | Loqate or Nokia geography data is not available for a country, then use the information in this chapter to import it using File-Based Data Import.

Consider the following questions when importing your data:

- How does your legacy system or source system represent the geography data compared to how Oracle applications represent the same data?
- Do you have to configure values in the application to map to your data values?
- What import features are available for importing your business object?
- How do you verify your imported data?
Comparing Business Object Structures
You must understand how your geography data corresponds with the data in the application so that you can map your legacy data to the data that the application requires. First, you must understand how the application represents the structure of the data for a geography.

You must import a separate country structure import object for each country. Each of these import objects must contain the geography types that are used in the country’s structure, organized in a hierarchy using geography level numbers. For example, if you are importing the country structure of Australia, the country structure could be the following: 1: Country, 2: State, 3: County, 4: Town, 5: ZIP.

Import Objects for the Geography
To facilitate importing geographies, the application incorporates the structure of the geography into import objects. The import object for the geography is ImpGeography.

Comparing Business Object Data
Each import object is a collection of attributes that helps to map your data to the application data and to support one-to-many relationships between the structural components that make up the geography.

You must understand the attribute details of the import objects so that you can prepare your import data. You can use reference guide files that contain attribute descriptions, values that populate attributes by default when you do not provide values, and validation information for each import object attribute. The validation information includes the navigation path to the task where you can define values in the application. For example, if you have values in your data that correlate to a choice list in the application, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values.

You can use the keyword importing geographies to search for related topics in Help.

Configurable Attributes
The application doesn’t support configurable attributes for geographies. You can import only data for geography object that already exist by default in the application.

Importing Geographies Using File-Based Data Import
For the geography business object, you must use the File-Based Data Import feature. You prepare XML or text source data files in a form that is suitable for a file-based import. The file-based import process reads the data in your source file, populates the interface tables according to your mapping, and imports the data into the application destination tables.

The Define File-Based Data Import Setup and Maintenance task list includes the tasks that are required to configure the import objects, to create source-file mappings, and to schedule the import activities. You submit file-based import activities for each import object. When you’re creating a new geography, you import the Geography object. You must be assigned the Master Data Management Administrator job role to access and submit the import activities for geographies.

When importing geography information, you must provide the parent reference information for all parent levels for the entity.

Verifying Your Imported Data
Oracle applications provide File-Based Import activity reports, which you can use to verify imported data. Users with the Master Data Management Administrator job role can also navigate to the Manage Geographies work area to view the imported geographies.

Related Topics
• File Import: How It Works
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 example, you have a source file containing geography data that you want to import into the application to make the geography data available for real-time address validation and tax purposes.

The following table summarizes the key decisions that you must make in this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of object are you importing?</td>
<td>Geography</td>
</tr>
<tr>
<td>What file type are you using for your source data?</td>
<td>Text file</td>
</tr>
<tr>
<td>Where are you uploading your source data file from?</td>
<td>Your desktop</td>
</tr>
<tr>
<td>What data type is your source data file?</td>
<td>Comma separated</td>
</tr>
<tr>
<td>Which fields are you importing into the application?</td>
<td>All, except for the RecordTypeCode field</td>
</tr>
<tr>
<td>When do you want to process the import?</td>
<td>Immediately</td>
</tr>
</tbody>
</table>

Summary of the Tasks

You perform the following steps to create an import activity and activate the import:

1. Determining what information is in the source file.
2. Creating and scheduling the import activity.
3. Monitoring the import results.

Prerequisites for Importing Additional Geography Data After Your Initial Import

1. Ensure that the combination of the Source ID and Parent Source ID values is unique for each row of data within a single import. However, your source data files don’t 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, then the changed IDs will not affect the import.
2. Ensure that all 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 must 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, then your geography import creates two state records (CA and California) in the application data, with the US as the country parent.
Determining What Information Is in the Source File

1. The source geography data files must include a unique Source ID value for each row of data and Parent Source ID value for the parent of that row of data. The Source or Parent Source IDs should not be longer than 18 characters.

2. You can structure your geography source data, as shown in the following table.

<table>
<thead>
<tr>
<th>Geography Level</th>
<th>Name</th>
<th>Source ID</th>
<th>Parent Source ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Country)</td>
<td>US</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>2 (State)</td>
<td>CA</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>3 (County)</td>
<td>Alameda</td>
<td>111</td>
<td>11</td>
</tr>
<tr>
<td>4 (City)</td>
<td>Pleasanton</td>
<td>1111</td>
<td>111</td>
</tr>
<tr>
<td>4 (City)</td>
<td>Dublin</td>
<td>1112</td>
<td>111</td>
</tr>
</tbody>
</table>

Creating and Scheduling the Import Activity

You can create an import activity, enter the import details, and schedule the import. An import activity includes selecting the source file or file location, mapping the source file to the database, and scheduling the import.

1. In the Setup and Maintenance work area, search for and select the task Manage File Import Activities.

2. In the Manage Import Activities page, click Create.

3. In the Create Import Activity: Map Fields page, map each field from your source file to the target object and attribute, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Master Reference Geographies</td>
</tr>
<tr>
<td>Object</td>
<td>Geography</td>
</tr>
<tr>
<td>File Type</td>
<td>Text File</td>
</tr>
<tr>
<td>File Selection</td>
<td>Specific file</td>
</tr>
<tr>
<td>Upload From</td>
<td>Desktop</td>
</tr>
<tr>
<td>File Name</td>
<td>Choose relevant file from desktop</td>
</tr>
<tr>
<td>Data Type</td>
<td>Comma separated</td>
</tr>
</tbody>
</table>

*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.
4. Click Next.

5. In the Create Import Activity: Map Fields page, map each field from your source file to the Oracle Sales Cloud database object and attribute, as shown in the following table.

<table>
<thead>
<tr>
<th>Column Header</th>
<th>Example Value</th>
<th>Ignore</th>
<th>Object</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Geography Name</td>
<td>United States</td>
<td>No</td>
<td>Imp Geography</td>
<td>Primary Geography Name</td>
</tr>
<tr>
<td>Country Code</td>
<td>US</td>
<td>No</td>
<td>Imp Geography</td>
<td>Country Code</td>
</tr>
<tr>
<td>Record Type Code</td>
<td>0</td>
<td>Yes</td>
<td>Imp Geography</td>
<td>Record Type Code</td>
</tr>
<tr>
<td>Source ID</td>
<td>10265</td>
<td>No</td>
<td>Imp Geography</td>
<td>Source ID</td>
</tr>
<tr>
<td>Parent Source ID</td>
<td>1053</td>
<td>No</td>
<td>Imp Geography</td>
<td>Parent Source ID</td>
</tr>
</tbody>
</table>

If you don't want to import a column in the text file, then you can select Ignore.

**Note:** If you can't map the fields from your source file to the relevant target object, then see the import object spreadsheets.

6. Click Next.

7. In the Create Import Activity: Create Schedule page, select Immediate in the Schedule field so that the import will start as soon as you activate it.

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

8. Click Next.

**Monitoring the Import Results**

You can monitor the processing of the import activity and view the completion reports for both successful records and errors.

1. In the Create Import Activity: Review and Activate page, verify your import details in the Import Details, File Details, Import Options, and Schedule sections. Update the import details if required by navigating to the previous screens using the Back link.

2. Confirm your import details, and click Activate to submit the import.

After the import activity has finished, the Status field value changes to Completed.

**Importing Country Structures Using File-Based Import: Explained**

This topic explains how to prepare and import country structure data from an external data source using the File-Based Data Import feature. A country structure is a hierarchical grouping of geography types for a country. For example, the geography structure for the United States has the geography type of State as the topmost level, followed by the County, then the City, and finally the Postal Code.
You can use the country structure to set up the following:

- The relationships between geographies within a country
- The types of geographies that you can define for a country

Consider the following questions when importing your data:

- How does your legacy system or source system represent the geography data compared to how the application represents the same data?
- Do you have to configure values in the application to map to your data values?
- Do you have to configure the application to capture additional attributes that are critical to the way you do business?
- What import features are available for importing your business object?
- How do you verify your imported data?

Comparing Business Object Structures
You must understand how your country structure data corresponds with the data in the application so that you can map your legacy data to the data that the application requires. First, you must understand how the application represents the structure of the data for a country structure.

You must import a separate country structure import object for each country. Each of these import objects must contain the geography types that are used in the country’s structure, organized in a hierarchy using geography level numbers. For example, if you’re importing the country structure of Australia, the country structure could be the following: 1: Country, 2: State, 3: County, 4: Town, 5: ZIP.

Import Objects for the Country Structure
To facilitate importing country structures, the application incorporates the structure of the country structure into import objects. The import object for country structures is GeoStructureLevel.

Comparing Business Object Data
Each import object is a collection of attributes that helps to map your data to the application data and to support one-to-many relationships between the structural components that make up the country structure.

You must understand the attribute details of the import objects so that you can prepare your import data. You can use reference guide files that contain attribute descriptions, values that populate attributes by default when you don’t provide values, and validation information for each attribute. The validation information includes the navigation path to the task where you can define values in the application. For example, if you have values in your data that correlate to a choice list in the application, then the validation information for that attribute provides the task name in the Setup and Maintenance work area where you can define your values.

Configurable Attributes
If you need to configure the application object to import your legacy or source data, you must use the Application Composer to design your object model extensions and to generate the required artifacts to register your extensions and make them available for importing. The corresponding import object is updated with the configurable attributes, which can then be mapped to your source file data. You can use the same source file to import both configurable attributes and the standard import object attributes.

Importing Country Structures Using File-Based Data Import
For the country structure business object, you must use the File-Based Data Import feature. You prepare XML or text source data files in a form that is suitable for a file-based import. The file-based import process reads the data in your source file, populates the interface tables according to your mapping, and imports the data into the application destination tables.
The Define File-Based Data Import Setup and Maintenance task list includes the tasks that are required to configure the import objects, to create source-file mappings, and to schedule the import activities. You submit file-based import activities for each import object. When you’re creating a new country structure, you import the Country Structure object. You must be assigned the Master Data Management Administrator job role to access and submit the import activities for country structures.

Verifying Your Imported Data
You can view the list of import activities from the Manage Import Activities page. You can verify your imported data by clicking the Status column for your import activity.

Related Topics
- File Import: How It Works
- Getting Started with File-Based Import: Documentation Overview
- Extending Oracle Sales Cloud: How It Works

Country Structure Import Objects: How They Work Together
This topic describes the Country Structure import object. You use the Country Structure import object when you submit a file-based import activity to import your country structure information. This topic introduces the following:

- Target objects for the Country Structure import object
- Target import object attributes
- Reference guide files for target import object attributes

Country Structure Target Import Objects
The Country Structure import object contains one target import object. The target import object organizes the individual attributes of the different aspects of the geography structure. When updating an existing country structure, you must provide the parent reference information of the existing country structure. This reference information connects the imported geography structure to the existing one. Use the ImpGeoStructureLevel target import object to create and update country structure information.

Target Import Object Attributes
You must compare the attributes that you want to import with the target object attributes that are available and with their valid values. To evaluate your source data and Oracle Sales Cloud attributes for mapping and validation, you use a reference file. See the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/en/cloud/saas/index.html). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects. A reference guide file includes attribute descriptions, default values, and validations performed by the import process. Review the validation for each attribute to determine whether there are functional prerequisites or prerequisite setup tasks that are required.

To import your source file data, you define a mapping between your source file data and the combination of the target object and target object attribute. You can predefine and manage import mappings using the Manage File Import Mappings task, or you can define the mapping when you define the import activity using the Manage File Import Activities task. Both tasks are available in the Setup and Maintenance work area.
Note: If any of the attributes you want to import does not have an equivalent target object attribute, then review the Application Composer extensibility features for country structures.

Reference Files for Target Import Object Attributes

To access reference files for this object’s target import objects, see the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (https://docs.oracle.com/en/cloud/saas/index.html). In the File Based Data Imports chapter, see the topic for your import object of interest, which includes links to reference files for target import objects.

For detailed information on importing geographies using file-based import, refer to Document No. 1481758.1, Importing Master Reference Geography Data, on the Oracle Support site.

The following table lists the reference file for the ImpGeoStructureLevel target import object.

<table>
<thead>
<tr>
<th>Target Import Object</th>
<th>Description</th>
<th>Reference File Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ImpGeoStructureLevel</td>
<td>Information that specifies a country’s geography structure.</td>
<td>HZ_IMP_GEO_STRUCTURE_LEVELS_Reference</td>
</tr>
</tbody>
</table>

Related Topics

- File Import: How It Works
- Getting Started with File-Based Import: Documentation Overview
- Importing Country Structures Using File-Based Import: Quick Start
- Extending Oracle Sales Cloud: How It Works

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 application instance, and then after the territory geography zones are defined you can export the territory zones and import them into another application instance.

To define your territory geography zones and then import your territory zones into another application instance, you must complete the following steps:

1. Import the master reference geography data into the 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 application instance.

Import the Master Reference Geography Data

Firstly, you must import the master reference geography data. Master reference geography data includes geography elements, such as country, state, and city, and is required for any geographical information that you store in the application, such as address information used in customer and sales records. For more information, see the topic Geography Hierarchy: Explained. Master reference geography data can be imported into the application using the Manage File Import Activities task in Setup and Maintenance.
Define Your Territory Geography Zones
After 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, see the topic Managing Territory Geographies: Worked Example.

Export the Territory Geography Zones
After 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
After you have downloaded your configuration package for your territory geography zone setup, you can import the territory zones into another application instance.

Note: Ensure that you import your master reference geography data into the new application instance before you import the configuration package.

Related Topics
• Managing Territory Geographies: Worked Example

Set Up Geocoding

Geocoding: Explained
This topic explains geocoding and how to enable this option in the application.
Geocoding is the process of finding latitude and longitude coordinates from geographic data such as street addresses or postal codes. Once these coordinates are available, you can use the spatial services feature to identify points of interest, such as customer and contact addresses, in the vicinity. The application integrates the Geocoding feature with eLocation (http://elocation.oracle.com/maps_oracle_dot_com_main.html), which is a Geocoding service provided by Oracle.

By default, the Geocoding option is turned off in the application. You can enable the Geocoding option in the Setup and Maintenance, Manage Geographies page.

If the Geocoding feature is enabled, the feature can be scheduled to run at regular time intervals. This ensures that newly created or updated locations are picked up and geocoded whenever you create or update an address using the user interface, web services, bulk import, or file-based import.

Setting Up Geocoding: Procedure
This procedure lists the steps to set up geocoding in Oracle Cloud applications.
Geocoding is a process that determines the latitude and longitude coordinates for a location. By default, geocoding is turned off in the application. You can use geocoding to display customers in the vicinity of a mobile address.
Enabling Geocoding for a Country

To enable geocoding for a country, complete these steps:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Enterprise Profile
   - Task: Manage Geographies

2. On the Manage Geographies page, search for the country for which you want to enable geocoding. You can either search by the country name or country code.

3. Click Search. The search results for the matching country names are displayed.

4. Select the country for which you want to enable the geocoding option.

5. Select Geocoding Defined for the country.

Populating Location Latitude and Longitude Information

Once geocoding is enabled, you can schedule this feature to run at regular time intervals so that newly created or updated locations are picked up and geocoded. To schedule the geocoding feature to run at regular intervals, complete these steps:

1. Navigate to Tools > Scheduled Processes work area.
3. Click the Name list and search for Populate Location Latitude and Longitude Information, and then click OK.
4. Enter the parameters such as Start Date and End Date, and click Submit.

Using Web Services to Populate Location Attributes for the Around Me Feature: Procedure

Use this procedure to populate location attributes using Web services for the Around Me feature in countries that are not supported by the eLocation service. The Around Me feature enables you to quickly locate information about your surroundings. This feature uses your current location to run a proximity search on objects with location information, such as contacts, opportunities, and customers.

Creating an Address with the Location Attributes Using the LocationService Web Service

Perform the following steps to create an address with location attributes, such as latitude and longitude, using the createLocation operation.

1. Extract the Web Services URL
   - a. Sign in to the Oracle Enterprise Manager Applications Control using the WebLogic Server credentials.
   - b. Select Oracle Fusion Customer Relationship Management from the navigation tree, and then select Fusion Applications.
   - c. From the tree, select CrmCommonApp, and then select CrmCommonApp (CRMCommonServer_1).
   - d. In the Web Services pane, click Test for the LocationServiceSoapHttpPort port.
   - e. In the Test Web Service pane, copy the URL of a WSDL that appears in the WSDL field until "?wsdl", and then paste to a notepad.

2. Derive the Payload
   - a. Launch the WSDL URL in a Web browser to open the LocationService endpoint page.
   - b. In the LocationServiceSoapHttpPort pane, select createLocation from the Operation list.
c. In the Location pane, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>CN</td>
</tr>
<tr>
<td>Address1</td>
<td>Chaoyang District</td>
</tr>
<tr>
<td>City</td>
<td>Shanghai</td>
</tr>
<tr>
<td>Postal Code</td>
<td>200233</td>
</tr>
<tr>
<td>State</td>
<td>China</td>
</tr>
<tr>
<td>CreatedByModule</td>
<td>AMS</td>
</tr>
<tr>
<td>Latitude</td>
<td>20.36789</td>
</tr>
<tr>
<td>Longitude</td>
<td>-39.34444</td>
</tr>
</tbody>
</table>

Note: Deselect all the other parameters in this Location pane. Also, deselect LocationProfile, OriginalSystemReference, and LocationInformation options.

d. Click the XML Source option.

Note: This option appears next to the Operation list.

e. Copy the XML source and paste to a notepad.

3. Call the Web Service

a. Open the Oracle Fusion Service Tester page.
b. In the WebService URL field, paste the WSDL URL that you derived from Step 5 of the "Extracting the Web Services URL" section.
c. Enter the user name and password credentials.
d. In the Payload pane, paste the XML source that you derived from Step 5 of the "Deriving the Payload" section.
e. Click Invoke. The Output Payload pane displays the output payload.

4. Test the Web Service

a. Sign in to the Oracle Fusion Applications Home Page.
b. Navigate to the Customer Center work area.
c. Search the address that you added.
d. Click the Addresses section.
e. From the Actions list, select the View Geography Information option.
f. Verify the latitude and longitude details.
Updating the Location Attributes of an Address Using the LocationService Web Service

Perform the following steps to update the location attributes of an address, such as latitude and longitude, using the updateLocation operation.

1. Extract the Web Services URL

   a. Sign in to the Oracle Enterprise Manager Applications Control using the WebLogic Server credentials.
   b. Select Oracle Fusion Customer Relationship Management from the navigation tree, and then select Oracle Fusion Applications.
   c. From the tree, select CrmCommonApp, and then select CrmCommonApp (CRMCommonServer_1).
   d. In the Web Services pane, click Test for the LocationServiceSoapHttpPort port.
   e. In the Test Web Service pane, copy the URL of a WSDL that appears in the WSDL field until "?wsdl", and then paste to a notepad.

2. Derive the Payload

   a. Launch the WSDL URL in a Web browser to open the LocationService endpoint page.
   b. In the LocationServiceSoapHttpPort pane, select updateLocation from the Operation list.
   c. In the Location pane, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LocationId</td>
<td>300100078489616</td>
</tr>
<tr>
<td>Latitude</td>
<td>30.36789</td>
</tr>
<tr>
<td>Longitude</td>
<td>-40.34444</td>
</tr>
</tbody>
</table>

   Note: Enter the location ID that was generated in Step 1 of the "Testing the Results" section.

   Note: Deselect all the other parameters in this Location pane. Also, deselect LocationProfile, OriginalSystemReference, and LocationInformation options.

d. Click the XML Source option.

   Note: This option appears next to the Operation list.

e. Copy the XML source and paste to a notepad.

3. Call the Web Service

   a. Open the Oracle Fusion Service Tester page.
   b. In the WebService URL field, paste the WSDL URL that you derived from Step 5 of the "Extracting the Web Services URL" section.
   c. Enter the user name and password credentials.
   d. In the Payload pane, paste the XML source that you derived from Step 5 of the "Deriving the Payload" section.
   e. Click Invoke. The Output Payload pane displays the output payload.
Chapter 5
Define Geographies

4. Test the Web Service
   a. Sign in to the Oracle Fusion Applications Home Page.
   b. Navigate to the Customer Center work area.
   c. Search the address that you updated.
   d. Click the Addresses section.
   e. From the Actions list, select the View Geography Information option.
   f. Verify the latitude and longitude details.

Define Address Cleansing

Defining Address Cleansing: Explained

Address cleansing validates, corrects, and standardizes address information that you enter in the application. Address cleansing, unlike geography validation, validates both the geography attributes and the address line attributes.

To use the address cleansing functionality, you need to have license for the customer data quality application, because the feature is delivered using data quality integration.

You can specify the real-time address cleansing level for each country by choosing either of these options:

- **None**: Specifies no real time address cleansing.
- **Optional**: Provides option to cleanse addresses.

Once you have enabled address cleansing for a country, a Verify Address icon appears at address entry points in the application. Click the icon to perform address cleansing and receive a corrected, standardized address. If the application does not find a matching address, then an alert message is displayed.

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 can't 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 at a lower level to any geography in a geography hierarchy?

Select the geography that you want to create a geography at lower level, and then click the Create icon. This will allow you to create a geography for a geography type that is one level lower to the geography type you selected. The structure of the country’s geography types are defined in the Manage Geography Structure page.

How can I verify whether the third-party geography structure and hierarchy I imported are available in the application?

You can track the progress of the geography structure and hierarchy import process by navigating to the Scheduled Processes page and viewing the status of the third-party geography data import process. Once the process completes, the status changes to Succeeded. You can then verify the newly imported geography structure and hierarchy in the Setup and Maintenance work area by navigating to the following: offering: Customer Data Management; functional area: Enterprise Profile; task: Manage Geographies, where you first loaded the third-party geography data.

！Note: Before you load geography data for a country from a third party provider, ensure that no geography structure or hierarchy is saved for that country. If geography structure or hierarchy data is already available, the load process fails.
How can I enable geocoding?

You can enable geocoding for a country by turning the Geocoding option for that country in the Setup and Maintenance work area by going to the following: offering: Customer Data Management; functional area: Enterprise Profile; task: Manage Geographies. Search for the country for which you want to enable geocoding and click the Geocoding Defined icon. If geocoding is enabled for a country, the Geocoding Defined icon displays a check mark.

Once you have enabled geocoding for a country, you must run the Run Geocode Generation ESS job on the Run Geocode Generation task. Before you run the job, however, ensure that you have specified the country code of the country for which you want to generate the geocodes.

Where can I view the geocode values of a location?

You can search for and view the geocode values of a party’s location in the Party Center and the Customer Center pages. Navigate to the Addresses section of the party’s profile and click either View, Columns, Latitude and View, Columns, Longitude, or View, Columns, Manage Columns, Latitude and Longitude. This displays the latitude and longitude, or geocode values, associated with the location of the party.

Note: Geocode information display is available only when geocoding is enabled for the country to which the address belongs.

What are Spatial Services?

Spatial services allow users to find points of interest such as customers, contacts, and so on using the latitude and longitude coordinates of an address.

The Oracle Fusion Mobile Sales application provides these services for sales representatives to discover accounts and contacts around their location.

Where can I update and view the geography name reference information for parties?

To view the geography name reference information associated with parties, you need to ensure that you have created an address for the party. You can create or update party addresses in the Organizations, Persons, and Groups work areas.

Once you have updated an address, you must either wait for the Run Geocode Generation ESS job to run automatically as scheduled or start geocode generation manually from the Setup and Maintenance work area by navigating as follows: offering: Customer Data Management; functional area: Enterprise Profile; task: Run Geocode Generation.

Once the Run Geocode Generation job has updated the geography information for the country associated with the party you updated, you can search for and view the geography name reference information associated with the party in the Organizations, Persons, and Groups work areas. Navigate to the person, organization, or group whose address you want to verify and click on Actions, View Geography Information. This displays a dialog box that displays the updated geography information, complete with address values enhanced using geography name reference.
Note: Geography name reference enriched geography information display is available only when geography validation is enabled for the country to which the address belongs.

How can I save an address that did not pass geography validation?

Search and select for the country name in the Manage Geographies page, and then click the Validation Defined option. In the Manage Geography Validation page, select No Validation in the Geography Validation Level for Country drop-down list. This option saves addresses that do not pass the geography validation, including incomplete and invalid addresses.
6 Manage Personally Identifiable Information

Protecting Personally Identifiable Information: Explained

The data or information that is used to uniquely identify a contact, or locate a person is called personally identifiable information (PII), such as social security number, addresses, bank account numbers, phone numbers, and so on. This information is considered confidential and sensitive, and must be protected to prevent unauthorized use of personal information for the purposes of legal regulation, financial liability, and personal reputation. For example, only authorized users must be allowed access to the social security numbers of people stored in a system.

In Oracle Applications Cloud, the PII data is secured and can be accessed only by the following job roles with the exception of mobile phone data:

- Sales Administrator
- Enterprise Scheduler Job Application Identity for CRM
- Oracle Data Integrator Application Identity for CRM
- Web Services Application Identity for CRM

Mobile phone data is accessible to all seeded job roles. However, if access to mobile phone data is needed for custom job roles, the IT Security Manager needs to assign the required PII data policies to the custom job role in the Security Console. The IT Security Manager can also add data policies for other PII data to seeded job roles.

The following table lists the PII attributes that are secured in Oracle Applications Cloud.

<table>
<thead>
<tr>
<th>PII Attribute</th>
<th>Table Name</th>
<th>Privilege Title</th>
<th>Privilege Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxpayer Identification Number (Social Security Number)</td>
<td>HZ_PERSON_PROFILES</td>
<td>View Trading Community Person Social Security</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_SOCIAL_SECURITY_DATA</td>
</tr>
<tr>
<td>Taxpayer Identification Number (Social Security Number)</td>
<td>HZ_PERSON_PROFILES</td>
<td>Manage Trading Community Person Social Security</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_SOCIAL_SECURITY_DATA</td>
</tr>
<tr>
<td>Citizenship Number</td>
<td>HZ_CITIZENSHIP</td>
<td>View Trading Community Person Citizenship Number</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_CITIZENSHIP_NUMBER_DATA</td>
</tr>
<tr>
<td>Citizenship Number</td>
<td>HZ_CITIZENSHIP</td>
<td>Manage Trading Community Person Citizenship Number</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_CITIZENSHIP_NUMBER_DATA</td>
</tr>
<tr>
<td>Home Address</td>
<td>HOME Address is identified by party site use defined in SITE_USE_TYPE field of the HZ_PARTY_SITEUSES table</td>
<td>View Trading Community Person Address</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_ADDRESS_DATA</td>
</tr>
<tr>
<td>Home Address</td>
<td>HOME Address is identified by party site use defined in</td>
<td>Manage Trading Community Person Address</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_ADDRESS_DATA</td>
</tr>
<tr>
<td>PII Attribute</td>
<td>Table Name</td>
<td>Privilege Title</td>
<td>Privilege Name</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Home Phone</td>
<td>HZ_CONTACT_POINTS rows with contact_point_purpose value PERSONAL</td>
<td>View Trading Community Person Contact</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_CONTACT_DATA</td>
</tr>
<tr>
<td>Home Phone</td>
<td>HZ_CONTACT_POINTS rows with contact_point_purpose value PERSONAL</td>
<td>Manage Trading Community Person Contact</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_CONTACT_DATA</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>HZ_CONTACT_POINTS rows with phone_type or phone_line_type value MOBILE</td>
<td>View Trading Community Person Mobile Phone Number</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_MOBILE_PHONE_DATA</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>HZ_CONTACT_POINTS rows with phone_type or phone_line_type value MOBILE</td>
<td>Manage Trading Community Person Mobile Phone Number</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_MOBILE_PHONE_DATA</td>
</tr>
<tr>
<td>Home Email</td>
<td>HZ_CONTACT_POINTS rows with contact_point_purpose value PERSONAL</td>
<td>View Trading Community Person Contact</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_CONTACT_DATA</td>
</tr>
<tr>
<td>Home Email</td>
<td>HZ_CONTACT_POINTS rows with contact_point_purpose value PERSONAL</td>
<td>Manage Trading Community Person Contact</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_CONTACT_DATA</td>
</tr>
<tr>
<td>Additional Identifiers</td>
<td>All rows that belong to PERSON party in HZ_ADDTNL_PARTY_IDS</td>
<td>View Trading Community Person Additional Identifier</td>
<td>HZ_VIEW_TRADING_COMMUNITY_PERSON_ADDITIONAL_IDENTIFIER_DATA</td>
</tr>
<tr>
<td>Additional Identifiers</td>
<td>All rows that belong to PERSON party in HZ_ADDTNL_PARTY_IDS</td>
<td>Manage Trading Community Person Additional Identifier</td>
<td>HZ_MANAGE_TRADING_COMMUNITY_PERSON_ADDITIONAL_IDENTIFIER_DATA</td>
</tr>
</tbody>
</table>

**Working with Protected Information: Explained**

Securing and protecting customer information against data breaches, data theft, or unauthorized access is an increasing concern in any enterprise. To address this issue, Oracle Applications Cloud provides restricted access to information that is considered private to an individual, also known as Personally Identifiable Information (PII).

PII is any information that uniquely identifies an individual, such as personal phone number, personal e-mail address, personal address, citizenship number, or Social Security Number (SSN). PII data can be used to uniquely identify, contact, or locate an individual, or can be used with other sources to uniquely identify a person. For example, a SSN uniquely and directly identifies an individual, whereas a telephone area code identifies a set of people.
The attributes that are identified as PII are as follows:

- Home Address
- Home Phone Number
- Personal Email Address
- Taxpayer Identification Number (Social Security Number)

In Oracle Applications Cloud, access to the PII data is restricted to a set of job roles. If you need to work with PII data for business purposes, then contact the IT security manager for the necessary privileges.

Managing Personally Identifiable Information: Worked Example

As a setup user, you can manage PII information in Oracle Applications Cloud.

In this example, you will add or update personally identifiable information (PII) data for your contacts. Before you can add or update the PII data, you must expose the PII attributes from Application Composer in an active sandbox.

Activating a Sandbox

1. Sign in as a setup user such as Sales Administrator.
2. From the Administration group in the Settings and Actions menu, select Manage Sandboxes.
3. Click Actions and then click New.
4. Enter a name in the Sandbox Name field.
5. Click Save and Close.
6. In the Confirmation dialog box, click OK.
7. In the Manage Sandboxes dialog box, select the sandbox you just created and click the Set as Active button.

Exposing PII Attributes from Application Composer

The Taxpayer Identification Number and Home Phone PII attributes can be exposed from the Application Composer.

1. Navigate to Application Composer.
2. From the Objects View, select Standard Objects, Contact, and then Pages. Ensure Simplified Pages is selected.
3. To add the Taxpayer Identification Number and Home Phone PII attributes to the Create Contact page:
   a. In the Create Contact section, select Standard Layout and click the Edit icon.
   b. In the Create Contact region, click the Edit icon.
   c. Move the Taxpayer Identification Number and Home Phone PII attributes from the Available Fields list to the Selected Fields list to add to the Create Contact page.
   d. Click Save and Close.
   e. Click Done.
4. To add the Taxpayer Identification Number and Home Phone PII attributes to the Edit Contact page:
   a. In the Edit Contact section, select Standard Layout and click the Edit icon.
b. Click the Profile tab to add the custom field.
c. In the Summary region, click the Edit icon.
d. Move the Taxpayer Identification Number and Home Phone PII attributes from the Available Fields list to the Selected Fields list to add to the Edit Contact page.
e. Click Save and Close.
f. Click Done

Adding and Updating PII Data

1. Navigate to Contacts.
2. In the Contacts page, enter the name of the contact and click the Search icon.
3. In the Edit Contact page of the contact, click the Profile tab.
4. Enter the PII data such as the Taxpayer Identification Number and Home Phone, and click Save and Close.
5. In the Contacts page, click the Create Contact button.

 ✓ Note: You can proceed to create a contact or click Cancel to exit without saving.

Publishing the Sandbox

You can publish a sandbox after you have tested and verified that the modifications done in that sandbox are ready to be moved to the mainline metadata.

1. Select a sandbox link that appears on the page and click the More link.
2. In the Sandbox Details dialog box, click the Publish button.
3. Click Yes in the Publish confirmation message box.
4. Close the Manage Sandboxes dialog box.
5. From the Settings and Actions menu, click Sign Out.

Assigning PII Privileges Using Security Console: Worked Example

As an IT Security Manager, you can create a custom job role and assign data policies required to access PII information. Perform the following steps to create a custom role and assign PII privileges to the custom role.

In this example, as an IT Security Manager, you will create a custom job role based on the existing Sales Representative role and assign PII privileges to access the Social Security data. After this, you must assign the custom job role to the users you want to assign PII privileges. For more information on assigning job roles to users, see the Oracle Sales Cloud Securing Oracle Sales Cloud guide.

Assign Job Roles

1. From the Navigator, click Tools - Security Console.
2. On the Security Console, ensure that Expand Toward is set to Privileges.
3. Enter sales representative in the Search field and select the Job Role in the results.
4. In the Search Results, click on the actions button and select Copy Role.
5. In the Copy Options window, select Copy top role and click Copy Role. The Copy Role page is displayed.
6. In the Basic Information page, enter the Role name and Role Code such as Sales Representative Custom PII and ZBS_SALES_REPRESENTATIVE_JOB_CUSTOM_PII.
7. Click Next.
8. Click Next.
9. In the Data Security Policies page, you must create four data security policies with the details provided in the following table. To create a data security policy, click Create Data Security Policy.

<table>
<thead>
<tr>
<th>Policy Name</th>
<th>Database Resource</th>
<th>Data Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant on Trading Community Party.</td>
<td>Trading Community Party.</td>
<td>Select All Values from the Data Set list. In the Actions list, select View Trading Community Person Social Security and Read.</td>
</tr>
<tr>
<td>This lets you view and read all Social Security information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant on Trading Community Party.</td>
<td>Trading Community Party.</td>
<td>Select Select by instance set from the Data Set list. In the Condition Name list, select Access the trading community person for table HZ_PARTIES for all people in the enterprise. In the Actions list, select View Trading Community Person Social Security and Read.</td>
</tr>
<tr>
<td>This ensures that you can view Social Security information for all contacts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant on Trading Community Party.</td>
<td>Trading Community Party.</td>
<td>Select All Values from the Data Set list. In the Actions list, select Manage Trading Community Person Social Security and Read.</td>
</tr>
<tr>
<td>This lets you manage all Social Security information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant on Trading Community Party.</td>
<td>Trading Community Party.</td>
<td>Select Select by instance set from the Data Set list. In the Condition Name list, select Access the trading community person for table HZ_PARTIES for all people in the enterprise. In the Actions list, select Manage Trading Community Person Social Security and Read.</td>
</tr>
<tr>
<td>This ensures that you can manage Social Security information for all contacts.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Click Next.
11. Click Next.
12. Click Next.
13. In the Summary and Impact Report page, click Save and Close.
7 Define Source Systems

Source Systems: Explained

This topic explains source systems and how to set up a source system.

You can set up source systems to enable users to identify the source of the data they are importing. 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 types of entities the source system contains. For example, you can specify that a source system will contain customer data.

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 to create references between source IDs and the Oracle Sales Cloud database IDs.

⚠️ Note: Ensure you update the source system code before you create the source system.

Source System Type

You must set up a source system as either a spoke system or a purchased system.

Enable for Items, Trading Community Members, Order Orchestration and Planning, and Assets

You can select one or more of the following entity types to import from the source system into the Oracle Sales Cloud database:

- Items
- Trading Community Members
- Order Orchestration and Planning
- Assets

You must enable the correct entity types because each import UI filters source systems based on their entity type. For example, if you set up a source system for Trading Community Members, Items, and Assets, then the source system can be selected as a data source only in this UI and not in different UI.
Source System Entities: Explained

Source system entities are entities that you can import using a specified source system, such as addresses and parties. When you import data from a source system, all the entities in the source system data are also imported. You can select multiple source references in the Manage Source System Entities task to allow multiple source system records to map to a single record.

Defining Source System Confidence: Procedure

A source system confidence level is used as criteria in survivorship rules for comparing information from different source systems. You can set the source confidence score per source system for attributes in the Person and Organization objects.

To define a source system confidence:

1. In the Setup and Maintenance work area, search for the Manage Source System Confidence task and click Go to Task.
2. From the Actions menu, click New.
3. On the Define Source System Confidence page, click the Object Type list and select an object type.
4. Select and move the attributes for which you want to set the source system confidence scores from the Available Attributes list to the Selected Attributes list.
5. Click the New icon to define the source confidence score for different systems.
6. Select a source system code from the Source System Code list.
7. Enter a value in the Source Confidence field. The value of the source system confidence can range from 0 to 100.
8. Click Save and Close.
9. On the Manage Source System Confidence page, click the Search button. The attribute for which you set the source system confidence appears along with the corresponding source system and their source confidence values.
10. Click Save and Close.

Related Topics
- Source System Confidence Levels: Explained

Managing Source System Confidence Levels: Procedure

Source system confidence levels indicate the reliability of a particular source system for specific attributes. You can add and delete source system confidence levels in the Manage Source System Confidence page.

To add a source system:

1. Navigate to the Manage Source System Confidence page from Setup and Maintenance.
2. Click New in the Actions menu.
3. In the Define Source System Confidence page, select the object type for which you want to define source system confidence levels.
4. Select the attributes for which you want to define source system confidence level.
5. In the Source System Code table, select the source system code that you want to associate with the selected attributes.

6. Enter the confidence level for the source system. This confidence level is applied to selected attributes in the source system.

You can similarly associate other source systems with the attributes you selected and specify new confidence levels as required.

FAQs for Define Source Systems

What happens if I allow multiple source system references?

When you import data from a source system, you can merge multiple or duplicate source system records and create one record in the Oracle Sales Cloud. This is referred to as allowing multiple source system reference. If you do not allow multiple source system references, then for every source system record, a duplicate record is created in Oracle Sales Cloud.
### Define Party Usages

#### Party Usage: Explained

Party usages describe how a party is used by the implementing organization. For example, a person in the business community may be a consumer or contact. You can create rules to determine how a party usage can be associated with party.

You can define the following types of rules for a party usage:

- Assignment rules
- Exclusivity rules
- Incompatibility rules
- Transition rules

#### Assignment rules

Assignment rules define how the party usage can and cannot be assigned to parties. You can allow unconditional party usage assignment, enable the assignment to be created manually, or be updated by an administrator.

Alternatively, you can also restrict the manual assignment and update of a party usage, which means that the party usage can only be created or updated by a business event. For example, the Customer party usage is assigned to a party when you create an account for the party.

You can also specify whether the party usage assignment can be created or updated when a relationship is assigned to a party. For example, when a contact has a relationship with an organization the party usage Organization Contact is assigned to the contact.

#### Exclusivity rules

Exclusivity rules restrict party usage assignment, so that the party usage can be assigned to a party only during a specified time period. For example, you can set up an exclusivity rule that the party usage Manufacturer can be assigned to parties only between January 1 2011 and February 1 2011.

#### Incompatibility rules

Incompatibility rules specify which party usages cannot be assigned concurrently to a party during a specific time period. For example, an incompatibility rule can specify that the party usage Sales Account usage cannot be assigned to a party with a Sales Prospect usage, during January 1 2011 and December 31 2030.

#### Transition rules

Transition rules specify which party usages can transition to the party usage you are creating or editing. Once a party transitions 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 rule is a grouping of party usages and is used to search and filter parties in the user interface. In a party usage filter rule, you can specify the party usages to include and exclude in the rule. You can also specify if the party usage assignments should be 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 the user interface to view only eligible customers from the list of parties.

⚠️ Note: You must compile a new filter rule before you can use it in the user interface.

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.
Define Names and Identifiers

Additional Name Types: Explained

Define additional name types to capture alternative names for parties. For example, create an additional name type, NICK_NAME, to capture the nicknames of parties of the Person type.

While creating an additional name type, specify the party type to which it applies. Then, the additional name type is available as a naming option for all parties of that party type within the deploying company. You can use additional name types to capture language-specific names as well.

Identifier Types: Explained

You can 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 select which party types can use the additional identifier type. These party types can be account or contact, 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 UI. To use identifier types in the application, you must call the Trading Community Member Name and Identifier Setup web service.
10 Define Relationships

Relationships Types: Explained

A relationship type categorizes relationship phrases and roles that determine the nature and purpose of a relationship. A relationship type defines the aspects of a relationship, such as the roles of the subject and object, business rules, and phrases that describe the relationship. A relationship uses the relationship type to define how a party is related to another party. You can manage relationship types from the Manage Relationship Types task.

The components of a relationship type are:

- Relationship phrase pair and role pair
- Relationship characteristics

Relationship Phrase Pair and Role Pair

A relationship type contains a relationship phrase pair and a role pair. These pairs define the mutual roles that the two parties play in a relationship, as shown in the following table.

<table>
<thead>
<tr>
<th>Pair</th>
<th>Purpose</th>
<th>Direction of Relationship Matters</th>
<th>Example for Employment Relationship Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Pair</td>
<td>Describes the roles of the entities.</td>
<td>No</td>
<td>Employee and Employer. For example, Bill has the role of an employee, and Oracle has the role of an employer.</td>
</tr>
<tr>
<td>Relationship Phrase Pair</td>
<td>Describes the roles of the entities in the relationship.</td>
<td>Yes</td>
<td>Employee of and Employer of. For example, Bill is employee of Oracle.</td>
</tr>
</tbody>
</table>

Relationship Characteristics

Relationship types include rules that define how you can use the relationship type.

When defining a relationship type, you can define the relationship to be one of the following:

- Circular
- Related to self

The following table explains these characteristics.

<table>
<thead>
<tr>
<th>Relationship Characteristic</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circular</td>
<td>The relationships between two parties forms a loop.</td>
<td>A competitor relationship type links two organization parties. In this scenario, ABC</td>
</tr>
</tbody>
</table>
### Relationship Characteristic | Description | Example
--- | --- | ---
Related to self | The subject and the object of the relationship are the same. | A subsidiary relationship type links a subsidiary organization ABC to a parent organization XYZ. The parent organization XYZ, in turn, is linked to itself as a subsidiary using the same relationship type.

### Relationship Groups: Explained
Relationship groups categorize relationship phrase and role pairs for functional purpose. For example, you can assign the relationship phrase Subsidiary Of to a group, and assign the phrase Headquarters Of to a different group.

### Uses of Relationship Groups
Relationship groups are used to determine which relationship roles and phrases are displayed in specific user interfaces of the Oracle applications. A relationship group can correspond to one or more Oracle Applications user interfaces. For example, you can configure an Oracle application to display only the relationship types that pertain to the Party Contacts information.

### Manage Relationship Types

### Creating Relationship Types: Worked Example
You create a relationship type to define the aspects of a relationship, such as the roles of the subject and object, business rules, and phrases that describe the relationship.

In this example, you will create a relationship type, and add relationship roles and phrases to the relationship type. The following table lists the key decisions you must consider before creating a relationship.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the subject and object party types for the relationship?</td>
<td>The subject type and object type is organization.</td>
</tr>
<tr>
<td>Is the relationship circular?</td>
<td>Yes</td>
</tr>
<tr>
<td>Can the subject related to self in this relationship?</td>
<td>No</td>
</tr>
</tbody>
</table>

You must search for the relationship type to make sure it does not already exist, before you create a relationship type.

### Searching for a relationship type
1. Navigate to the Manage Relationship Types task from the Setup and Maintenance work area..
2. On the Manage Relationship Types page, in the Search region, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Operator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship Type</td>
<td>Equals</td>
<td>Supplier</td>
</tr>
<tr>
<td>Subject Type</td>
<td>Equals</td>
<td>Organization</td>
</tr>
<tr>
<td>Object Type</td>
<td>Equals</td>
<td>Organization</td>
</tr>
</tbody>
</table>

3. Click **Search**.

Review the search results to ensure that there is no existing relationship types for the criteria.

### Creating a relationship type

1. In the Search Results region, click the **Create** icon to open the Create Relationship Type page.
2. On the Create Relationship Type page, in the Overview region, enter Supplier in the **Relationship Type** field.
3. Select the **Circular** check box.
4. In the Relationship Roles and Phrases region, click the **Create** icon to open the Create Relationship Role and Phrase Pair dialog box. When you create a relationship with a relationship phrase or role, the reverse direction is automatically created with the other phrase or role in the pair.
5. Complete the fields, in the Create Relationship Role and Phrase Pair dialog box, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Type</td>
<td>Organization</td>
</tr>
<tr>
<td>Subject Phrase</td>
<td>Supplier of</td>
</tr>
<tr>
<td>Subject Role Singular</td>
<td>Supplier</td>
</tr>
<tr>
<td>Subject Role Plural</td>
<td>Suppliers</td>
</tr>
<tr>
<td>Object Type</td>
<td>Organization</td>
</tr>
<tr>
<td>Object Phrase</td>
<td>Buyer of</td>
</tr>
<tr>
<td>Object Role Singular</td>
<td>Buyer</td>
</tr>
<tr>
<td>Object Role Plural</td>
<td>Buyers</td>
</tr>
</tbody>
</table>

6. Click **OK**.
7. Click **Save and Close**.
Editing Relationship Types: Worked Example

You can manage relationship types from the Manage Relationship Types task. You update a relationship type, by adding relationship roles and phrases to the relationship type, or assigning the relationship to a group.

In this example, you will add a role and phrase pair to the relationship type Employment. You will also add the Employment relationship type to the Party Contacts group.

Editing a relationship type

1. Navigate to the Manage Relationship Types task from the Setup and Maintenance work area.
2. On the Manage Relationship Types page, in the Search region, enter Employment in the Relationship Type field.
3. Click Search.
4. In the Search Results region, select the Employment relationship type and Edit icon to open the Edit Relationship Type page.
5. On the Edit Relationship Type page, in the Relationship Roles and Phrases region, click the Create icon.
6. In the Create Relationship Role and Phrase Pair, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Type</td>
<td>Organization</td>
</tr>
<tr>
<td>Subject Phrase</td>
<td>Has contract employees</td>
</tr>
<tr>
<td>Subject Role Singular</td>
<td>Contractor</td>
</tr>
<tr>
<td>Subject Role Plural</td>
<td>Contractors</td>
</tr>
<tr>
<td>Object Type</td>
<td>Person</td>
</tr>
<tr>
<td>Object Phrase</td>
<td>Contract Employee of</td>
</tr>
<tr>
<td>Object Role Singular</td>
<td>Contract Employee</td>
</tr>
<tr>
<td>Object Role Plural</td>
<td>Contract Employees</td>
</tr>
</tbody>
</table>

7. Click OK.
8. In the Relationship Groups region, click the Add Row icon.
9. In the Name drop-down list, select Party Contacts.
10. Click Save and Close.

Manage Relationship Groups
Creating Relationship Groups: Worked Example

Relationship groups are used to categorize relationship roles and phrases, based on the user interfaces that they appear in. In this example, you will create a group for relationship types that link an organization to an external organization.

Creating a relationship group

1. Navigate to the Manage Relationship Groups task from Setup and Maintenance work area.
2. On the Manage Relationship Groups page, in the Search Results region, click the Create icon to open the Create Relationship Group page.
3. Complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Related External Organizations</td>
</tr>
<tr>
<td>Code</td>
<td>REL_EXT_ORGS</td>
</tr>
<tr>
<td>Description</td>
<td>Indicates a group of relationships that link the organization to external entities.</td>
</tr>
</tbody>
</table>

4. In the Relationship Roles and Phrases region, click on the Add Row icon to add a relationship role and phrase pair.
5. For each relationship role and phrase pair, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>Subject Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Supplier</td>
</tr>
<tr>
<td>Organization</td>
<td>Competitor</td>
</tr>
</tbody>
</table>

6. Click Save and Close.
11 Define Classifications

Classifications: Explained

The classifications model provides a flexible tool to categorize entities such as parties, projects, tasks, and orders. Classifications enable you to classify an entity, such as a party, the way 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 provide the ability to classify entities under a broad subject area. For example, you can classify organizations based on the industries in which they operate. Classification categories are a logical grouping of one or more classification codes that define classification code rules.

Classification Rules

Classification categories can have rules that define how classifications are assigned to entities. When you set up classification categories, you can create specific rules. For example, 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, the 1987 SIC classification category has a classification code of software that you can assign to a party in the software industry. You can organize classification codes into a hierarchical tree. The parent classification code appears as the highest level node of the tree and child classification codes branches 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 IT as the classification category with hardware, keyboards, and printers as the classification codes. Then, you can set up hardware as the parent classification code at the highest level on the tree, with keyboards and printers as the child classification codes. You can create additional child classification codes, such as dot matrix, ink-jet, and laser under the printer classification code.

Entity Assignment

You can define the entities that you want to assign to a classification category. In SQL, enter the entity table name and create a Where clause. You can assign the classification category only to the entities that satisfy the Where clause. For example, if a classification category called industries has the Where clause of "party_type = ORGANIZATION", then only organizations are 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 and its child classification codes to an object. The parent classification code is the highest level of the classification code tree. 

If you don't allow parent classification codes to be assigned to an object, then you can only assign child classification codes, or codes that are under another classification code, to an object.

What happens if I allow multiple class code assignment?

You can assign more than one classification code from the 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 the 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.

Why can't I see some classification information in Customer Center?

Customer Center displays the classification and classification group information of a customer in the Classifications node. All classifications are categorized under classification categories. For example, the 1987 SIC classification category has a classification code of software that you can assign to a party in the software industry.

Customer Center displays the classification information based on the classification categories configured in the Manage Classification Group task. You must configure all classification categories, and their codes, that you want to use in the task so that they can be displayed in the Customer Center. For example, you have imported a customer with a classification code that belongs to the category Major Industry Codes. However, if you do not add the classification category Major Industry Codes in the Manage Classification Group page then the classification code is not displayed in the Customer Center.
12 Define Data Formats

Data Formats and Setup Activities: How They Fit Together

Data Formats help you define address formats and name formats within your organization, and assign them to specific geographies. Oracle Sales Cloud uses these formats to capture and validate party name and address information. You must set up geography data, in addition to the address formats, to use geography-based validations for addresses.

Managing Data Styles

You can define new styles for name and address to categorize a name and address style formats. A Data Style, such as Mailing Address or Concatenated Name, categorizes name and address style formats. Oracle Sales Cloud uses Data Styles to identify a particular manner or situation for which an entity is formatted. For example, you can configure the application to display only certain name and address styles in the user interface.

How Data Formats Ensure Data Quality

You use Data Formats to ensure party address and party name data quality. The address formats are used to present the address elements in the country specific formatting, and help users during address entry. This also specifies the scope of address validation. Address formats are linked to the geographic data for address verification, at the data-import level. For example, when creating or editing an address for a party, selecting a country displays the address format for that country.

The use of Name formats ensures that name components are stored in a decomposed manner. You can use Name formats to construct name representations from components in a variety of different styles. You can also store phonetic names that are required for certain geographies.

Data Formats simplify the storage of party address and party name, by storing them as components. You can use formats to validate addresses and name data, after setting up address and name format for a geography.

Setup Formats: Explained

Data Formats determine how names and addresses are displayed in the Oracle Sales Cloud.

There are two types of data formats.

- Address format: Address formats specify the layout of an address, such as the components in the address and their position in the layout. For example, an address format for US postal address can include address, city, state, and postal code in that order.
- Name format: Name formats specify how a name is displayed in the application, based on the usage, language, and country. A name format includes name elements, their position, and formatting. You can create a name style format for either an organization name or a person name.

Name and address formats vary depending on usage, country, and language. You can create name formats and address formats, modify them, and assign them to specific locales. This lets you create data formats for various countries, languages, and usages.
Additionally, you can create variations of the formats, with each variation having its own layout. For example, an address format may have variations such as general address, rural address, and military address.

Creating an Address Style Format: Worked Example

This example shows how to create an address style format for a specified address style.

To create an address style format:

- Specify the address style format and address style
- Create the format variation layout
- Assign a locale

In this example, we will create an address style to format Canadian postal addresses.

Creating the Address Style Format Name and Specifying the Address Style

To create an address style format and specify the address style:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Trading Community Foundation
   - Task: Manage Address Formats
2. On the Manage Address Formats page, click Create from the actions menu.
3. On the Create Address Style Format page, complete the fields in the Overview section, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>CA_POSTAL_ADDR</td>
</tr>
<tr>
<td>Name</td>
<td>Canadian Postal Address Format</td>
</tr>
<tr>
<td>Address Style</td>
<td>Postal Address</td>
</tr>
<tr>
<td>Default</td>
<td>No</td>
</tr>
</tbody>
</table>

4. Click Save.
Creating the Format Variation Layout

To create a format variation layout:

1. In the Format section on the Create Address Style Format page, click on the Format Layout tab.
2. In the Format Variation section, select New from the Actions menu.
3. Enter a variation number in the Variation field.
4. In the Format Variation Layout section, select New from the Action menu.
5. Complete the fields as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>1</td>
</tr>
<tr>
<td>Position</td>
<td>1</td>
</tr>
<tr>
<td>Prompt</td>
<td>Address line 1</td>
</tr>
<tr>
<td>Address Element</td>
<td>Address line 1</td>
</tr>
<tr>
<td>Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Uppercase</td>
<td>No</td>
</tr>
</tbody>
</table>

6. Create another address line as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>2</td>
</tr>
<tr>
<td>Position</td>
<td>2</td>
</tr>
<tr>
<td>Prompt</td>
<td>City</td>
</tr>
<tr>
<td>Address Element</td>
<td>City</td>
</tr>
<tr>
<td>Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Uppercase</td>
<td>Yes</td>
</tr>
</tbody>
</table>

7. Click Expand on the City address line, then enter the value 1 in Blank Lines Before.
8. You can 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.
Note: While creating a new address style format, make sure that the transform function is present for each component as in predefined address style formats. The transform function may impact translation.

Assigning a Locale

To assign an address style format to a locale:

1. In the Format section on the Create Address Style Format page, click on the Locale Assignment tab.
2. Select New from the Actions menu.
3. Select the country for the address style format. You can assign multiple countries to the format.
4. Click Save and Close.

Updating Address Formats: Procedure

This procedure lists the steps to update address formats in Oracle Sales Cloud.

Address formats specify the layout of an address, such as the components in the address and their position in the layout. For example, an address format for Canada postal address can include Address, City, Province, Postal Code, and Country in that order.

To update an address format, complete these steps:

1. Navigate to the Setup and Maintenance work area.
2. Search for Manage Address Formats and click Go to Task.
3. Select the country whose address format you want to update. For example, select Canada to update its address format.
4. Click Search to display the address formats for the country.
5. Select the address format you want to update to display the Edit Address Style Format page.
6. Click Edit to view the page in edit mode.
   You can update the address components in the Format region.
7. To update the address components, expand the address component to view options for each address component.

Note: The sell-to address for accounts is not displayed if it contains only the country information. To display the sell-to address with only the country information, you must remove the Attribute Transform Function for the Country address component. To remove the function, delete the entry in the Attribute Transform Function field for the Country address component.

8. Click Save and Close.
# Seeded Address Formats for Countries: Explained

The following table lists the countries for which seeded address formats are available. This table contains the style format codes, territory codes, and attribute codes for these countries. The geographical attribute codes vary for each country.

<table>
<thead>
<tr>
<th>TERRITORY_SHORT_NAME</th>
<th>STYLE_FORMAT_CODE</th>
<th>TERRITORY_CODE</th>
<th>ATTRIBUTE_CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>POSTAL_ADDR_AR</td>
<td>AR</td>
<td>ADDRESS1, ADDRESS2, ADDRESS3, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
<tr>
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<td>POSTAL_ADDR_AU</td>
<td>AU</td>
<td>ADDRESS1, ADDRESS2, ADDRESS3, CITY, COUNTRY, POSTAL_CODE, STATE</td>
</tr>
<tr>
<td>Austria</td>
<td>POSTAL_ADDR_AT</td>
<td>AT</td>
<td>ADDRESS1, ADDRESS2, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
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<td>POSTAL_ADDR_BE</td>
<td>BE</td>
<td>ADDRESS1, ADDRESS2, ADDRESS3, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
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<td>STYLE_FORMAT_CODE</td>
<td>TERRITORY_CODE</td>
<td>ATTRIBUTE_CODE</td>
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</tbody>
</table>
### Define Data Formats

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<th>TERRITORY_SHORT_NAME</th>
<th>STYLE_FORMAT_CODE</th>
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<th>ATTRIBUTE_CODE</th>
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<tr>
<td>Mexico</td>
<td>POSTAL_ADDR_MX</td>
<td>MX</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDR_ELEMENT_</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ATTRIBUTE2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDR_ELEMENT_</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ATTRIBUTE3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STATE</td>
</tr>
<tr>
<td>Netherlands</td>
<td>POSTAL_ADDR_NL</td>
<td>NL</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td>New Zealand</td>
<td>POSTAL_ADDR_NZ</td>
<td>NZ</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td>TERRITORY_SHORT_NAME</td>
<td>STYLE_FORMAT_CODE</td>
<td>TERRITORY_CODE</td>
<td>ATTRIBUTE_CODE</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Norway</td>
<td>POSTAL_ADDR_N_EUR</td>
<td>NO</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td>Poland</td>
<td>POSTAL_ADDR_EUR</td>
<td>PL</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td>Romania</td>
<td>POSTAL_ADDR_N_EUR</td>
<td>RO</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>POSTAL_ADDR_SA</td>
<td>SA</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td>Singapore</td>
<td>POSTAL_ADDR_SG</td>
<td>SG</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td>TERRITORY_SHORT_NAME</td>
<td>STYLE_FORMAT_CODE</td>
<td>TERRITORY_CODE</td>
<td>ATTRIBUTE_CODE</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>South Africa</td>
<td>POSTAL_ADDR_ZA</td>
<td>ZA</td>
<td>ADDRESS1, ADDRESS2, ADDRESS3, ADDR_ELEMENT_ATTRIBUTE2, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
<tr>
<td>Spain</td>
<td>POSTAL_ADDR_ES</td>
<td>ES</td>
<td>ADDRESS1, ADDRESS2, CITY, COUNTRY, POSTAL_CODE, PROVINCE</td>
</tr>
<tr>
<td>Sweden</td>
<td>POSTAL_ADDR_SE</td>
<td>SE</td>
<td>ADDRESS1, ADDRESS2, ADDRESS3, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
<tr>
<td>Switzerland</td>
<td>POSTAL_ADDR_CH</td>
<td>CH</td>
<td>ADDRESS1, ADDRESS2, CITY, COUNTRY, POSTAL_CODE</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>POSTAL_ADDR_AE</td>
<td>AE</td>
<td>ADDRESS1</td>
</tr>
</tbody>
</table>

*Oracle Sales Cloud*

*Implementing Customer Data Management*

*Chapter 12*

*Define Data Formats*
### Creating a Name Style Format: Worked Example

In this example, we create a name style format, define its format variation layout, and assign United States to it. Note that the application selects a name style format to display name components based on your Locale Assignment preferences. You can set either Country or both Country and Language as locale. However, you cannot set only Language as locale.

<table>
<thead>
<tr>
<th>TERRITORY_SHORT_NAME</th>
<th>STYLE_FORMAT_CODE</th>
<th>TERRITORY_CODE</th>
<th>ATTRIBUTE_CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>POSTAL_ADDR_GB</td>
<td>GB</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STATE</td>
</tr>
<tr>
<td>United States</td>
<td>POSTAL_ADDR_US</td>
<td>US</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STATE</td>
</tr>
<tr>
<td>Uruguay</td>
<td>POSTAL_ADDR_S_AM</td>
<td>UY</td>
<td>ADDRESS1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADDRESS3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>COUNTRY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSTAL_CODE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PROVINCE</td>
</tr>
</tbody>
</table>
When both Country and Language are set as locale, the application displays name components based on the language settings of your current session. For example, suppose you have the following two name style codes created under the Concatenated Name format:

- Style Code 1:
  - Country: China
  - Language: Simplified Chinese

- Style Code 2:
  - Country: China
  - Language: English

When you set your country preference to China and session language to English, you get the contact name formatted with Style Code 2. However, when you set your country preference to China and session language to Simplified Chinese, you get the contact name formatted with Style Code 1.

If no locale exists for a country and language setting, the default name style code (the name style code with Default Format for Style option set to Yes) is used.

Note that the name format takes effect only when you create a new contact or when you update the name of an existing contact. The application does not translate contact names.

Creating the name style format

To create a name style format:

1. On the Manage Name Formats page, click Create from the Actions menu. The Create Name Style Format page is displayed.
2. In the Overview region, complete the fields as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>CONCAT_NAME_US</td>
</tr>
<tr>
<td>Name</td>
<td>United States Concatenated Name Format</td>
</tr>
<tr>
<td>Name Style</td>
<td>Concatenated Name</td>
</tr>
<tr>
<td>Default Format for Style</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: Set the Default Format for Style option to Yes to specify the name style format that you are creating as the default format for the selected name style, Concatenated format.

3. In the Format Variation region, click Add Row from the Actions menu. A blank row is added to the Format Variation table.
4. Enter 1 in the Variation Rank field of the blank row.
5. In the Format Variation Layout region, click **Create** from the Actions menu. A blank row is added to the Format Variation Layout table.

6. Complete the fields as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>1</td>
</tr>
<tr>
<td>Position</td>
<td>1</td>
</tr>
<tr>
<td>Prompt</td>
<td>Person First Name</td>
</tr>
<tr>
<td>Name Element</td>
<td>First Name</td>
</tr>
<tr>
<td>Required</td>
<td>No</td>
</tr>
<tr>
<td>Uppercase</td>
<td>No</td>
</tr>
</tbody>
</table>

> **Note:** You can create as many name parts as you require. Click **Expand** to enter blank lines and delimiters before or after a name part. You can also create an Attribute Transform Function to change a data value into a different value.

7. Click **Create** from the Actions menu to create another variation layout as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>2</td>
</tr>
<tr>
<td>Position</td>
<td>2</td>
</tr>
<tr>
<td>Prompt</td>
<td>Person Last Name</td>
</tr>
<tr>
<td>Name Element</td>
<td>Last Name</td>
</tr>
<tr>
<td>Required</td>
<td>No</td>
</tr>
<tr>
<td>Uppercase</td>
<td>No</td>
</tr>
</tbody>
</table>

8. On the **Locale Assignments** tab, click **Actions > Create**, and complete the fields as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>United States</td>
</tr>
<tr>
<td>Language</td>
<td>American English</td>
</tr>
</tbody>
</table>
Note: The application selects a name style format to display name components based on your Locale Assignment preferences. You can set either Country or both Country and Language as locale. However, you cannot set only Language as locale. If no locale exists for a country and language setting, the default name style code (the name style code with the Default Format for Style option set to Yes) is used.

9. 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 variation of an Address Style Format?

You can create different variations of an address style format, with each variation having its own layout. For example, a country’s postal address may have variations such as general postal address, rural address, and military address. When you create an address style format, the layout defined for the format is assigned as the default variation. Click **Add** in the Format Variation region of the Edit Address Style Format page, for the address style format, to add a variation of the Address style. For each address style format variation, you can enter a variation rank to define the priority of the variation.

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.

How can I create another variation of a Name Style Format?

You can create different variations of a name style format, with each variation having its own layout. For example, different regions in a country may have different name style formats. Click **Add** in the Format Variation region in the Edit Name Style Format page, for the name style format, to add a variation of the name style. For each name style format variation, you can enter a variation rank to define the priority of the variation.
13 Define Contact Points

Telephone Numbering Plan: Explained

A telephone numbering plan defines the pattern of digits for a country phone number. It defines the country-specific components of phone numbers, display format styles, and codes. The codes include country codes, international prefixes, area codes within a country, and mobile prefixes. You can specify country-specific mobile prefixes to determine if a phone number is mobile or not.

You can also create multiple telephone number display formats for a country. For example, for the US phone format, you define the phone country code as 01, fixed area code as three numbers in length, and subscriber number as seven digits in length. You can create a telephone format for domestic display, such as (999) 999-9999, and a format for international display, such as 999-999-9999.

Updating Telephone Numbering Plans: Procedure

You can update telephone number plans from the Manage Phone Numbering Plans page. You cannot edit the country information if the country has area codes, mobile prefixes, or phone formats defined.

To update telephone number plans:

1. Navigate to the Manage Phone Numbering Plans task from the Setup and Maintenance work area.
2. Search for the country whose telephone number plan you want to update. For example, to search for the United States, select United States in the Country Code list or enter 1 in the Phone Country Code field.
3. Select the country and click Edit to view the Edit Phone Numbering Plan page.
4. You can edit the following country-specific phone information in the Scheme section:
   - Trunk Prefix: The code to dial before long distance numbers within the country, for example 1 for the US.
   - International Prefix: The code to dial before international numbers when calling from the country that you are setting up, for example 011 for the US.
   - Subscriber Number Length: The length of the subscriber number for countries where the subscriber length is fixed.
   - Area Code Length: The length of the area code for countries where the area code length is fixed.
5. You can edit the following regional phone number information for the country in the Regional Information section:
   - Area Codes: Allows you to define area codes that you want to use for the country.
   - Mobile Prefixes: Allows you to define mobile prefixes that you want to use for this country. Mobile prefixes contain the area code and possible prefixes of the subscriber number. For example, the mobile prefix of 650506 consists of the 650 area code and the 506 subscriber number prefix.
   - Telephone Number Formats: Allows you to define multiple telephone number display formats for a country.
6. Click Save and Close to save your updates.
How Setup Telephone Numbering Plans Fits in with the Other Setup Tasks

Telephone Numbering Plans define the telephone number format for a country. You can define multiple formats for a country depending on the requirements.

How Telephone Number Plans Setup Fits in with other Setup Tasks

Phone number format, along with the other country-specific location information such as address and name formats, defines geographic-specific data formats. You can manage telephone number plans in the Manage Telephone Numbering Plans page.

Oracle Sales Cloud uses the telephone number formats to display phone number in the appropriate style, and to validate phone numbers. You can define country-specific components of phone numbers, display format styles, and area codes. Oracle Sales Cloud uses the phone formats to correctly parse phone numbers and determine the correct format style for displaying phone numbers in user interfaces.

Oracle Sales Cloud validates phone numbers for a country, based on the format defined for the country. The phone numbers are also validated against a common set of rules that apply to all countries. You can also enter time zone information for a country, at the country code and area code level. The time zone information is validated against the time information defined for the country.

FAQs for Define Contact Points

Why can't I update the country information section in the Edit Telephone Numbering page?

You can't update the country information if regional information such as area codes, mobile prefixes, and phone formats are defined for the country.

How can I assign relationships when creating a contact point for a contact or an account?

When you create a contact point either for a contact in the Contact’s Profile page or for an account in the Account’s Contacts page, you can select the associated relationships using the Customer Relationship LOV.
14 Define File-Based Data Import

File-Based Data Import: Highlights

You can import application data from external sources into the Oracle Sales Cloud database by using the Define File-Based Data Import group of tasks available from the Setup and Maintenance work area. The primary source of documentation on file-based data import is the File Based Data Import for Oracle Sales Cloud guide available on the Oracle Sales Cloud Help Center (www.oracle.com/pls/topic/lookup?ctx=cloud&id=OEFBS).

Oracle Sales Cloud File-Based Data Import Guide

The Oracle Sales Cloud File-Based Data Import Guide is a collection of topics that helps you in using file-based data import by providing:

- High-level information about the file-based data import process, architecture, and tools
- Detailed information for importing specific objects and their related objects
- Guidance on importing a minimal set of fields for specific objects

Related Topics

- Customer Data Management Cloud Using Customer Data Management
- Sales Cloud Understanding File-Based Data Import and Export

FAQs for Define File-Based Data Import

What determines the list of File-Based Data Import objects displayed?

A single import object can have multiple associated components that are considered objects by themselves. Whether or not an associated object can be grouped as a component of another object for the purpose of file import is determined by the complexity of the object structure and how the object is stored in the data model. Oracle Sales Cloud provides import objects predefined to meet the file processing import requirements. Consequently, in some cases, more than one source file may be required to capture all associated components of an object.

What happens if I inactivate an Import Activity?

The Import Activity will not stop the currently running process. However, it will cause the next scheduled process plus any future repeating file import activities not to start. You can always activate the process at a later stage.
What happens if I add a marketing list in the Import Activity definition?

File-based data import enables you to record consumers and organization contacts in a marketing list when importing consumer, lead, and response import objects. Select an existing list or create a new one. A marketing list is assigned the list type value of Imported if created while defining an import activity. After the objects are imported successfully, the consumers and contacts are added as members of the marketing list.

Why can't I retrieve duplicates using the options in the Customer Data Management Duplicates LOV when importing accounts or legal entities?

When importing accounts or legal entities, you can retrieve duplicates using the Customer Data Management Duplicates LOV only if you have licensed the data quality functionality. Once licensed, you must rebuild the keys for your matching configuration using the Manage Enterprise Data Quality Matching Configurations task. After the keys are rebuilt, the matching functionality uses the settings in the match configuration to identify duplicates.
15 Manage Bulk Data Export

Overview

You can extract large volumes of data from Oracle Sales Cloud objects using bulk export. You can either extract a full set of records for an object, or perform incremental extracts. For example, you can extract complete set of account data or extract updated set of records every week. Bulk export creates comma separated or tab delimited files, which are attached to the export process.
The following figure depicts the process of selecting data for export, scheduling the export activity, and delivering the data file to the customer application.

Defining Bulk Export Process: Procedure

You can extract large volumes of data from Oracle Sales Cloud objects using bulk export. You can either extract full set or records for an object, or perform incremental extracts. Bulk export creates comma separated or tab delimited files, which are attached to the export process after export.
The details of the export process are as follows:

1. Create the export process definition. The export process definition is made up of the export map and the processing schedule.
2. In the export map of the export process definition:
   a. Select attributes for the export
   b. Filter data for the export
3. Schedule the export job.
4. Activate the export job.

Defining the Bulk Export Process
After defining the mapping files, you create an export process to export an object’s data using the mapping files created.

To define a bulk export process:

1. Navigate to the following in the Setup and Maintenance work area:
   o Offerings: Sales
   o Functional Area: Data Import and Export
   o Task: Schedule Export Processes
2. Select Create from Actions menu to view the Create Export Process Definition: Enter Basic Information page.
3. Enter basic information about the export process, such as name and export map, in the page.
4. Click Next to view the Create Export Process Definition: Configure Export Objects page.
   In this page, you define the export object you want to export and the mapping you want use for the export process.
5. Optionally, you can enter a name for the mapping if you would like to reuse this mapping for other export processes. An object’s mapping file determines what data is exported every time an object is exported. You can have multiple mapping files for an export object for various object details you want to export.
   
   Note: The export mapping is optional. You don’t need to select an existing mapping to perform an export.
6. Select Create from Actions menu to view the Manage Export Objects dialog box.
7. Select objects from the Available Objects list and move them to the Selected Objects list and click Done.
8. Define the attributes you want to export in the Detail region of the page. You can define:
   o Attributes you want to export. Select Enabled for the attributes you want to export.
   o Header text of the attributes. Edit the header text in the Header text column. This value is used as the column header in the files generated by the export process
9. Define the filters to determine the data you want to export by clicking the button in the Edit Filter Criteria column.
   
   Note: For the incremental extracts, you can create filters using time stamps to determine which rows to export.
10. Click Next to view Create Export Process Definition: Create Schedule page.
11. Select if you want to run the export process immediately or at a later time. Two types of scheduled exports are supported:
   a. Incremental Export
   b. Normal Export
12. Click Next to view the Create Export Process Definition: Review page.
13. Review the export process details, and click on Activate.

After each export process executes and completes, a comma or tab delimited data file is created and stored as an attachment to the export process. If the number of records matching the view criteria exceeds 1 million records, or if the generated export file size exceeds 100 MB, then export process generates multiple files. The generated export files are numbered using the extension ".NMM" starting at ".001".

You can also use web services to schedule and start an export process. In this case, you can use the `getAttachment` web service to download the data file.

**Bulk Export Process Components: How They Work Together**

Bulk export makes exporting data easier by leveraging the export maps. To export files using bulk export, you create a process definition, map files for full and incremental extract processes, and then schedule the export process.

**Bulk Export Process Components**

The following figure shows the bulk export process components comprising of process name, export process ID, and export map ID.
Bulk export process includes three components:

- **Process name**: A name for the export process that lets you easily refer the export process rather than using the computer generated ID such as 10000019897192.
- **Export process ID**: A unique, application generated identifier for the export process definition for the export process. The process ID ties the export map with its export objects, filters, and the export schedule.
- **Export map ID**: A unique identifier for the export map. You can reuse the export map in different process definitions. For example, you create a process definition to export all the data from the Customer export object. You can 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 Manage Bulk Data Export**

**How can I determine which data objects to select for successful export?**

Review the requirements for the data to be exported and determine the source view objects that hold 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. To find activities for a specific date range, for example 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 following in the Setup and Maintenance work area:

- **Offerings**: Sales
- **Functional Area**: Data Import and Export
- **Task**: Schedule Export Processes

**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.

**What happens if you change the sequence number or header text in an exported data file?**

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 multiple export view objects?

Select as many view objects as required for the export process. Choose the individual attributes required from each export object.
Configure Oracle Social Data and Insight Cloud Service for Data Enrichment and Address Verification

Configuring Social Data and Insight Cloud Service for Data Enrichment and Address Verification: Overview

You can use the Oracle Social Data and Insight Cloud service, also known as, Data as a Service (DaaS), to enrich your account and account contact (B2B contact) data in Oracle Cloud applications. This cloud service uses Dun and Bradstreet (D&B) data for more than 200 countries as the primary source for enrichment. Data enrichment improves the quality of your existing account or account contact data, address information, and also enriches the data with additional information. Using this cloud service, salesperson can enrich accounts and account contacts in real-time and administrators and data stewards can enrich data in bulk.

You can enrich account and account contact data in bulk using either batch data enrichment in the Data Enrichment work area, or manually using bulk import and export templates. You can also use real-time data enrichment to enrich a small set of data in real time on the Accounts and Contacts pages. Additionally, you can also download enriched account and contact data from the Oracle Social Data and Insight Cloud service.

Configuring Batch Data Enrichment

The batch data enrichment option lets you enrich data in bulk by creating and submitting batch-processing jobs in the Data Enrichment work area. Configuring this enrichment process flow requires the completion of the following set-up steps:

1. Create a DAAS user and assign appropriate privileges. For more information, see: Creating a DaaS User and Assigning Role: Procedure.
2. Configure Sales Cloud to Data Cloud integration. For more information, see: Configuring Sales Cloud to Data Cloud Integration: Procedure.

Configuring Manual Data Enrichment

If you require custom attributes for social data enrichment, then you must create a manual enrichment job. The manual enrichment option lets you use custom import mappings to import the enriched records back. The following are the steps to perform manual data enrichment:

1. Export data from Sales Cloud to a CSV file
2. Enrich the data using Oracle Social Data and Insight Cloud service
3. Download the enriched data file from Oracle Social Data and Insight Cloud service
4. Import the enriched data file into Oracle Sales Cloud

The application comes with preconfigured mappings to import account data or account contact data from Data as a Service (DaaS). However, if you require custom attributes for social data enrichment, as a part of configuring this enrichment process flow you must create custom import mappings to import the enriched records back.
Configuring Real Time Data Enrichment

The real time enrichment option lets you enrich data one-record at a time during the create account or contact flow. It also lets you enrich up to five existing records on the Accounts or Contacts simplified UI. Configuring this enrichment process flow requires the completion the following set-up steps:

1. Create a DAAS user and assign appropriate privileges. For more information, see: Creating a DaaS User and Assigning Role: Procedure.
2. Set up real-time data enrichment preferences. For more information, see: Managing Social Data and Insight Cloud Attribute Mapping and Preferences: Procedure.
3. Set up administrator profile options. For more information, see: Managing Social Data and Insight Cloud Attribute Mapping and Preferences: Procedure.
4. Configure Sales Cloud and Data Cloud integration. For more information, see: Configuring Sales Cloud to Data Cloud Integration: Procedure.

The following figure illustrates all the available data enrichment process flows:

For more information, see the Using Oracle Social Data and Insight Cloud Service guide.
Creating a DaaS User and Assigning Role: Procedure

Here are the key steps to create a DaaS user and to assign Data Service Client API AppID role:

1. Subscribe to DaaS for Sales (Social Data and Insight) or request a trial account:
   - a. Log on to the My Services application at [http://cloud.oracle.com](http://cloud.oracle.com).
   - b. Navigate to Data Center where the service is located and request a trial or purchase a subscription to Data as a Service (DaaS).

   For more details, see Subscribing to an Oracle Cloud Service Trial in the Getting Started with Oracle Cloud.

   Oracle Social Data and Insight Cloud Service and Oracle Address Verification Cloud Service offer a combined trial subscription. When you order a trial for one service, you also get the other. Each service must be purchased separately, but they can be part of the same subscription order. For more information about subscriptions, see Understanding Subscriptions and FAQ Subscriptions.

   When you request a trial subscription, you receive a welcome e-mail. An activation e-mail contains the Activate My Trial button along with service details. Service details consist of information such as name of the data center, subscription details, and identity domain.

2. Activate your account:
   - a. Open the welcome e-mail you received from Oracle Cloud.
   - b. Click the Activate My Trial button.

   When the activation of your trial subscription to an Oracle Cloud service is complete, you get a post activation e-mail from Oracle Cloud. This e-mail contains the sign-in credentials, My Services URL, and identity domain information.

   **Tip:** You can see the DaaS subscription URL under the My Account Administration Details section of the e-mail.

3. Reset your password:
   - a. Click the My Service URL
   - b. Log on to the My Services Dashboard using the temporary password.
   - c. Reset your password when you are prompted.

   When you sign in successfully, the My Services Dashboard page displays a list of your activated services and the REST service endpoint URLs for both Address Verification API and Company and Contact Data API.

4. Set up DaaS by creating a user and assigning the Data Service Client API AppID role to the new user:
   - b. Click the Users tab on the My Services Users page. Add User page appears.
   - c. Enter your credentials.
   - d. Expand the Advanced Roles section and add the role Data Service Client API AppID.
   - e. Click Add to assign this role to the user.
Configuring Integration to Data Cloud: Procedure

You can configure the Sales Cloud to the Data Cloud Integration after you set up the DaaS user. To configure the Sales Cloud to the Data Cloud Integration you navigate to Sales Cloud for adding DaaS URL and credentials. The following are the steps to configure sales Cloud to Data Cloud Integration:

1. Navigate to Setup and Maintenance.
2. Enter Manage Sales Cloud to Data Cloud Integration in the task search box.
3. Click Search.
4. Navigate to Manage Sales Cloud to Data Cloud Integration page.
5. Enter the following information:
   a. URL of your DaaS instance - This service instance URL is available in the post-activation email and on the My Services application.
   b. Select oracle/wss_username_token_over_ssl_client_policy as Security Policy.
   c. Enter the DaaS user name and password you created in DaaS setup.
6. Click Save and Close.

Managing Real Time Data Enrichment Mapping and Preferences: Procedure

This topic illustrates configuring the enrichment preferences and attribute mappings for Oracle Social Data and Insight Cloud Service. You must configure the enrichment preferences and attribute mappings before enriching accounts or contacts.

To configure enrichment preferences, you must:

- Enable and configure enrichment preferences for account and contact.
- Configure Oracle Social Data and Insight Cloud Service attribute and Sales Cloud attribute mappings for account and contact.
- Set up administrator profile options.

Enabling and Configuring Enrichment Preferences

You can configure the enrichment preferences to define what data is updated in an enriched account or contact.

Perform the following steps to enable and configure enrichment preferences:

1. Navigate to the Manage Social Data and Insight Cloud Attribute Mapping and Preferences task in the Setup and Maintenance work area.
2. The Preference tab of the Manage Social Data and Insight Cloud Attribute Mapping and Preferences page appears.

   Note: The Manage Social Data and Insight Cloud Attribute Mapping and Preferences page includes two regions, one each for account and contact. You can use these to enable enrichment for account and contact, and configure the data that should be included in the enriched account.

3. Select Enable Enrichment for Account or Enable Enrichment for Contact to enable enrichment for account or contact respectively.
4. To define the data in an enriched account or contact, you can do one of the following:
   - Select **Auto fill blank fields in record** to update all blank Sales Cloud fields with the data from the Oracle Social Data and Insight Cloud service. This updates all fields in an account or contact record with the data from the Oracle Social Data and Insight Cloud service.
   - Select **Configure Settings by Field** to define what data should be updated for each field in the enriched account or contact.

5. To define the data at the field level, select:
   - **Auto fill Blank**: To update the field with data from Oracle Social Data and Insight Cloud service if it is blank.
   - **Update with Data Cloud Value**: To update all blank fields with data from Oracle Social Data and Insight Cloud service.
   - **Display on Select Fields to Enrich page**: To display the value in the Select Fields on the Enrich page and prompt the user to select the field value.

6. Enter a match threshold for account and contact in the **Match Threshold** field.
7. Enter the maximum number of records that should be enriched in the **Maximum Number of Accounts for Real-Time Enrichment** and **Maximum Number of Contacts for Real-Time Enrichment** fields.
8. Enter the maximum number of new contacts you want to create during enrichment in the **Maximum Number of New Contacts** field.
9. Click **Save**.
10. Click **Save and Close**

> **Note:** Make sure that you have set the administrator profile options using the procedures documented in the Setting up Administrator Profile Options section of this document.

If you have a preproduction or staging environment for Oracle Sales Cloud, then test the service association between your Sales Cloud preproduction environment and your Data Cloud subscription. You must limit testing to 500 records. When you go to production, do the service association between your Sales Cloud production environment and your Data Cloud production environment. The service association steps are the same, but the test and production service URLs are different. The service URLs are listed in your welcome e-mail and in the My Services application.

### Configuring Attribute Mappings

Complete the following steps to configure attribute mapping:

1. Navigate to the **Manage Social Data and Insight Cloud Attribute Mapping and Preferences** task in the Setup and Maintenance work area.
2. Click on the **Attribute Mappings** tab of the **Manage Social Data and Insight Cloud Attribute Mapping and Preferences** page that appears.
3. Verify whether the out of the box mapping of Oracle Social Data and Insight Cloud Service attributes and Sales Cloud attributes for account and contact meets your requirements, and make any changes if required.
4. Click **Save**.
5. Click **Save and Close**.

### Setting up Administrator Profile Options

Complete the following steps to set administrator profile options:

1. Navigate to **Manage Administrator Profile Values** task in the Setup and Maintenance work area. The Manage Administrator Profile Values page appears.
2. Enter **DAAS_PRODUCTION_MODE** as the Profile Option Code on the Manage Administrator Profile Values page.
3. Click Search.
4. Make sure that the Profile Level Site value is set to No.

**Note:** Do not set the Profile Level Site value to Yes. The only supported value today is No.

5. Click Save and Close.

### Specifying the Industry Classification for Accounts

Use the following procedure to specify which industry classification category you want to use for accounts. The classifications for the category you select appear in the list of values for the Industry field in the Account user interface. By default, the profile is set to CUSTOMER_CATEGORY.

1. Sign in as a setup user.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Sales
   - Functional Area: Sales Foundation
   - Task: Manage Administrator Profile Values
3. On the Manage Administrator Profile Values page, search for the Profile Option Code MOT_INDUSTRY_CLASS_CATEGORY.
4. Select the classification category from the Profile Value list. The available values are:
   - 1972 SIC
   - 1977 SIC
   - 1987 SIC
   - CUSTOMER_CATEGORY
   - NACE
   - NAF
   - NAICS_1997
   - NAICS_2002
5. Click Save and Close.

### Manual Data Enrichment

#### Enriching Account and Account Contact Data Manually: Explained

You could manually enrich account and account contact data using the Oracle DaaS for Sales service.

To manually enrich account and account contact data:

1. Export the data you want to enrich from Oracle Sales Cloud to a CSV file.
2. Enrich the exported data using the Oracle DaaS for Sales service.
3. Download the enriched data file from Oracle DaaS for Sales service.
4. Import the enriched data file into Oracle Sales Cloud.

Exporting Data from Oracle Sales Cloud

You export account or account contact data from Oracle Sales Cloud using the Schedule Export Processes task. The export process provides two predefined objects, one each for exporting account and account contact data. While exporting data, select the Organization for Data Cloud Enrichment object to export account data and the Person for Data Cloud Enrichment object to export account contact data.

Enriching Data in the Oracle DaaS for Sales Service

You can manually enrich account or account contact data using the Enrich Data functionality of the Oracle DaaS for Sales service.

To enrich data, select the CSV file exported from Oracle Sales Cloud in the Enrich Data Records page of the Oracle DaaS for Sales service. You must select the CRM template during enrichment, so that the enriched file can be later downloaded in Oracle Sales Cloud. After enrichment is complete, a CSV file with the enriched data is available for download from the Jobs list.

For more information about Oracle DaaS for Sales service, see Using Oracle DaaS for Sales Service guide.

Importing Enriched Data into Oracle Sales Cloud

You must import the CSV file generated in the Oracle DaaS for Sales service into Oracle Sales Cloud. Use the file-based import functionality to import the enriched account or account contact data.

To import data into Oracle Sales Cloud using file-based import:

1. Create an import activity.
2. Enter the appropriate import details. While specifying the import object, select the Account to import account data and the Contact to import account contact data.
3. Provide the file mapping. Mapping defines the mapping between the columns provided in a source file and object attributes in the import file. Oracle Sales Cloud provides preconfigured mappings to import account data or account contact data from Oracle DaaS for Sales service. You must select Preconfigured Data to view the available preconfigured mappings.
   While specifying the import mapping, select Data Cloud Account Import mapping to import account data and Data Cloud Contact Import mapping to import contact data. Oracle Sales Cloud then automatically maps the data in the CSV file to object attributes.
4. Schedule the import process.

Note: In some cases, the import activity may display a warning about source and target attributes. You can ignore the warning message and click OK to submit the import process.

Importing New Records into Oracle Sales Cloud from Oracle Social Data and Insight Cloud Service: Explained

You can import accounts or account contacts from Oracle Social Data and Insight Cloud service into your sales cloud instance.

To import data from Oracle Social Data and Insight Cloud service to Oracle Sales Cloud:

1. Export the accounts or account contacts from Oracle Social Data and Insight Cloud service.
2. Import the CSV file into Oracle Sales Cloud.

Before importing account contacts, you must ensure that the accounts related to the contacts you want to import exist in Oracle Sales Cloud.

Exporting Accounts or Account Contacts from Oracle Social Data and Insight Cloud Service

You can either export a set of account or account contact data or export all available accounts and account contacts from the Oracle Social Data and Insight Service.

You can search for accounts and account contacts you want to import from the Search window. After searching for the records you want to export, click Export to export the data. You must select Use CRM Template as the export template so that the exported file can be later imported in Oracle Sales Cloud.

For more information about Oracle Social Data and Insight Cloud service, see Using Oracle Social Data and Insight Cloud Service guide.

Importing Accounts or Account Contacts into Oracle Sales Cloud

You can import the account or account contact data exported from Oracle Social Data and Insight Cloud service into Oracle Sales Cloud using the file-based import functionality. You create an import activity, enter the appropriate import details, provide the file mapping, and schedule the import to import the data from the CSV file into staging tables. Import processing is subject to the settings defined for the import object, mapping, and import activity.

To import data into Oracle Sales Cloud using file-based import:

1. Create an import activity.
2. Enter the appropriate import details. While specifying the import object, select Account to import account data and Contact to import account contact data.
3. Provide the file mapping. Mapping defines the mapping between the columns provided in a source file and object attributes in the import file. Oracle Sales Cloud provides seeded mappings to import account data or account contact data from Oracle Social Data and Insight Cloud service. You must select Seeded Data to view the available seeded mappings.
   While specifying the import mapping, select Data Cloud Account Import to import account data and Data Cloud Contact Import to import account contact data. Oracle Sales Cloud then automatically maps the data in the CSV file to object attributes.
4. Schedule the import process.

Real Time Data Enrichment

Enriching Sales Cloud Data in Real Time: Overview

You can enrich Oracle Sales Cloud data in real time using the Oracle Social Data and Insight Cloud service, also known as, Data as a Service (DaaS). Before you can enrich data, you must first purchase a third-party Data as a Service (DaaS) subscription and your administrator must create a new user with the Data Service Client API AppID role. This user is used by Oracle Sales Cloud to securely communicate with the Oracle Social Data and Insight REST APIs.

Before you start enriching Sales Cloud data, you must:

- Set up Sales Cloud and Data Cloud integration.
- Set up real-time enrichment preferences and administrator profile options.
Enriching Account and Account Contact Data in Real Time:
Procedure

This topic illustrates how you can enrich account and account contact data in real time from Sales Cloud, using Oracle Social Data and Insight Cloud Service. Oracle Social Data and Insight Cloud Service includes authenticated D&B records of companies and contacts. You can use the service to authenticate and enrich account and contact data.

Enrich Account Data in Real Time

You enrich account data from the Accounts page.

To enrich account data:

1. Navigate to the Accounts page.
2. Select the Enrich from Data Cloud option from the Actions menu. In the Create Account flow, the option is named Enrich Account.
3. Select the account (or multiselect the accounts) you want to enrich.

   If you select multiple accounts for enrichment, the application automatically enriches the accounts and displays the results. The result includes information about the accounts enriched and the status of each account.

   If you select one account for enrichment, the Select Fields to Enrich page is displayed. In the page, you can select which data values you would like to use in the enriched account record for each of the fields.

4. Select existing value or the Data Cloud value for each of the fields.
5. Optionally, click Hide Identical Values to hide the fields where the Sales Cloud data is same as the Data Cloud data.
6. Click Enrich.

Enrich Account Contact Data in Real Time

You enrich account contact data from the Contacts page.

To enrich account contact data:

1. Navigate to the Contacts page.
2. Select Enrich from Data Cloud option from the Actions menu. In the Create Contact flow, the option is named Enrich Contact.
3. Select the contact (or multiselect the contacts) you want to enrich.

   If you select multiple account contacts for enrichment, the application automatically enriches the contacts and displays the results. The result includes information about the contacts enriched and the status of each contact.

   If you select one contact for enrichment, the Select Fields to Enrich page is displayed. In the page, you can select which data values you would like use in the enriched contact record for each of the fields.

4. Select existing value or the Data Cloud value for each of the fields.

   Note: You can enrich only those contacts who are associated with enriched accounts.
5. Optionally, click **Hide Identical Fields** to hide the fields where the Sales Cloud data is same as the Data Cloud data.

6. Click **Enrich**.

---

Enriching Oracle Sales Cloud Data with Social Attributes

Enriching Oracle Sales Cloud Data with Social Attributes: Process Overview

Enriching Oracle Sales Cloud Data with Social Attributes consist of two set of tasks. They are as follows:

- Set up the social attributes supported by Oracle Social Data and Insight Cloud Service also known as Data as a Service (DaaS) in Oracle Sales Cloud (OSC).
- Enrich the Oracle Sales Cloud account and contact data with the social data downloaded from the Oracle Social Data and Insight Cloud service.

Perform the following seven tasks to set up DaaS social attributes and enrich the Oracle Sales Cloud account and contact data:

- Identifying the social attributes supported by Data as a Service
- Creating custom fields for social attributes in Sales Cloud
- Adding custom social attributes to UI pages
- Mapping custom social attributes with the DaaS supported social attributes
- Adding the custom social attributes to select fields to enrich page
- Enriching account and contact data with custom social attributes
- Publishing the sandbox used for creating custom fields

Social Attributes Supported by Data as a Service (DaaS): Explained

Data as a Service supports the following social attributes or handles for accounts (companies) and contacts.

For a complete list of account (company) and contact attributes, see the Understanding Attributes chapter in the Using Oracle Social Data and Insight Cloud Service guide. The following table lists all the supported Data Cloud account (company) social attributes or handles.

<table>
<thead>
<tr>
<th>Company Data Attribute</th>
<th>Geographic Availability</th>
<th>Length of Data in Characters</th>
<th>Subscription Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blog URL</td>
<td>Global</td>
<td>350</td>
<td>D&amp;B Company Enterprise Records</td>
<td>Blog URL for the company.</td>
</tr>
<tr>
<td>Twitter URL</td>
<td>Global</td>
<td>350</td>
<td>D&amp;B Company Enterprise Records</td>
<td>Twitter URL for the company.</td>
</tr>
</tbody>
</table>
Implementing Customer Data Management

Chapter 16

Configure Oracle Social Data and Insight Cloud Service for Data Enrichment and Address Verification

<table>
<thead>
<tr>
<th>Company Data Attribute</th>
<th>Geographic Availability</th>
<th>Length of Data in Characters</th>
<th>Subscription Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Followers</td>
<td>Global</td>
<td>9</td>
<td>D&amp;B Company Enterprise Records</td>
<td>Number of Twitter followers for the company Twitter URL</td>
</tr>
</tbody>
</table>

Note: All the attributes listed here are of the data type VARCHAR2. This data type can be either a Text or a Long Text depending on the length of data. While creating custom fields using the application composer, you must select the type of the field according to the listed length of data in characters.

For a list of all the supported Data Cloud contact social attributes or handles, see the Understanding Attributes section of the Using Oracle Social Data and Insight Cloud Service guide.

Related Topics
- Using Oracle Social Data and Insight Cloud Service

Creating Custom Fields for Social Attributes in Sales Cloud: Procedure

Enriching the Oracle Sales Cloud account and contact data with social attributes requires the creation of custom fields in Oracle Sales Cloud for the social attributes.

You must create a sandbox before you create custom fields using the Application Composer.

Creating a Sandbox for Creating Custom Fields

Complete the following steps to create a sandbox to create custom fields:

1. Sign in to Oracle Sales Cloud as Sales Administrator.
2. Click the Settings and Actions menu.
3. Click Manage Sandboxes. The Manage Sandboxes page appears.
4. Click the Actions menu on the Manage Sandboxes page.
5. Select New.
6. Enter the sandbox name and description in the Create Sandbox dialog box.
7. Click Save and Close. A confirmation message dialog box appears.
8. Click OK in response to the confirmation message
9. Navigate to the Manage Sandbox page.
10. Search for the newly created sandbox in the Manage Sandbox page.
11. Select the newly created sandbox.
12. Click Set as Active.
13. Click Yes in response to the warning message.

Now you are in the new sandbox and are ready to create social attributes.

Creating Custom Fields Using the Application Composer

Complete the following steps to create a custom field using the Application Composer:

1. Sign in to Oracle Sales Cloud as Sales Administrator.

---

Note: All the attributes listed here are of the data type VARCHAR2. This data type can be either a Text or a Long Text depending on the length of data. While creating custom fields using the application composer, you must select the type of the field according to the listed length of data in characters.

For a list of all the supported Data Cloud contact social attributes or handles, see the Understanding Attributes section of the Using Oracle Social Data and Insight Cloud Service guide.

Related Topics
- Using Oracle Social Data and Insight Cloud Service

Creating Custom Fields for Social Attributes in Sales Cloud: Procedure

Enriching the Oracle Sales Cloud account and contact data with social attributes requires the creation of custom fields in Oracle Sales Cloud for the social attributes.

You must create a sandbox before you create custom fields using the Application Composer.

Creating a Sandbox for Creating Custom Fields

Complete the following steps to create a sandbox to create custom fields:

1. Sign in to Oracle Sales Cloud as Sales Administrator.
2. Click the Settings and Actions menu.
3. Click Manage Sandboxes. The Manage Sandboxes page appears.
4. Click the Actions menu on the Manage Sandboxes page.
5. Select New.
6. Enter the sandbox name and description in the Create Sandbox dialog box.
7. Click Save and Close. A confirmation message dialog box appears.
8. Click OK in response to the confirmation message
9. Navigate to the Manage Sandbox page.
10. Search for the newly created sandbox in the Manage Sandbox page.
11. Select the newly created sandbox.
12. Click Set as Active.
13. Click Yes in response to the warning message.

Now you are in the new sandbox and are ready to create social attributes.

Creating Custom Fields Using the Application Composer

Complete the following steps to create a custom field using the Application Composer:

1. Sign in to Oracle Sales Cloud as Sales Administrator.
1. Navigate to the Application Composer from the Tools section of the Navigator work area.
2. Expand Standard Objects, expand Account or Contact, and click Fields.

   **Note:** This section describes how to create a custom field for the account object. The procedures for creating a custom field for the account and contact objects involve the same steps. You may navigate to Account or Contact under the Standard Objects in the Application Composer UI accordingly.

3. Click Actions in the Fields page.
4. Select the Create option to add a new custom field. The Select Field Type dialog box appears.
5. Select the field type as Text or Long Text or Number.

   **Note:** You must select the type of the field according to the length of the data in characters listed in the "Identifying the Social Attributes Supported by Data as a Service (DaaS)" section. All the attributes listed in the section are of the data type VARCHAR2. VARCHAR2 can be either a Text or a Long Text depending on the length of the data in characters.

6. Click OK. The Create Text Fields page appears.
7. Enter the Display Label and Help Text of the social attribute. Name is auto populated based on the display label.
8. Change the attribute data length if required.

   **Note:** The maximum data length for all the supported social URLs is 2080 characters.

9. Click Save and Close.

   Once the attribute is created, you can see it on the Fields page, under the Custom tab.

Repeat this procedure to create additional custom fields or attributes.

### Adding Custom Sales Cloud Social Attributes to UI Pages: Procedure

To enrich newly created custom fields for social attributes in Sales Cloud, you must add the attributes to the simplified pages in the Application Composer. When you add the attributes in the simplified page, it is displayed in the details page of Account and Contact.

#### Adding Account Custom Fields to Simplified Pages

Complete the following steps to add the account custom fields to simplified UI pages:

1. Navigate to Pages through Account in the Application Composer.
2. Select the Simplified Pages tab on the Accounts: Pages UI.
3. Click Actions under the Details Page layouts. To add new custom fields, you must create a duplicate page layout based on the default page layout.
5. Specify the New Layout Name and select Default Layout as the Source Layout.
6. Click Save and Edit. The Creation layout: Social Attributes page appears.
7. Click the Edit icon next to FUSE Customer ObjectCreation View. The Edit Creation page appears.
8. Select the newly created fields from the Available Fields pane of the box and use the arrow buttons to move the required into the Selected Fields pane.
9. Click Save and Close after editing and adding these custom fields.
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Accounts Custom fields (social attributes) are now added to the Simplified Pages.

Adding Contact Custom Fields to Simplified Pages

Complete the following steps to add contact custom fields to the simplified UI pages:

1. Navigate to Pages through Contact in the Application Composer.
2. Select the Simplified Pages tab in the Contact: Pages UI.
3. Click Actions under the Details Page Layouts. To add new custom fields, you must create a duplicate page layout based on the default page layout.
5. Specify the New Layout Name and select the Default Layout as the Source Layout.
6. Click Save and Edit. The Details Layout: Social Attributes page appears.
7. Click the Edit icon next to Contact Overview Form. The Edit Details Page Summary Form page appears.
8. Select the newly created fields from the Available Fields pane of the box and use the arrow buttons to move the required into the Selected Fields pane.
9. Click Save and Close after editing and adding these custom fields.

The Contact Custom fields (social attributes) are now added to the Simplified Pages.

Mapping Custom Social Attributes with the DaaS Supported Social Attributes: Procedure

A newly created custom field must be mapped to the Data Cloud social attributes to show the fields on the data matching screen. This enables you to enrich Oracle Sales Cloud account and contact data with the enriched social data downloaded from the Oracle Social Data and Insight Cloud service.

Mapping the Sales Cloud Account Attributes with the Data Cloud Social Attributes

The following are the steps to map Sales Cloud account attributes with the Data Cloud Social attributes:

1. Navigate to the Setup and Maintenance page.
2. Enter Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences in the tasks search box.
3. Click Search.
4. Navigate to Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences UI.
5. Click the Attribute Mappings tab on the Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences page.
6. Search for the social attributes in the Social Data Cloud and Insight Attribute column that you must map with the custom fields.
7. Select Account as the Sales Cloud Object.
8. Click the corresponding Sales Cloud Attribute drop-down list. The Search and Select FusionAttributeName dialog box appears.
9. Enter the name of the custom attribute that you created.
10. Click Search.
11. Select the Custom attribute from the search results table.
12. Click OK.
13. Click Save and Close on the Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences Page.

The mapping of the Sales Cloud account attributes with the Data Cloud Social attributes is now complete.
Mapping the Sales Cloud Contact Attributes with the Data Cloud Social Attributes

The following are the steps to map Sales Cloud contact attributes with the Data Cloud Social attributes:

1. Navigate to the Contact Attributes section on the Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences page.
2. Search for the Data Cloud contact social attributes in the Social Data Cloud and Insight Attribute column.
3. Select Contact from the Sales Cloud Object drop-down list.
4. Click the corresponding Sales Cloud Attribute drop-down list. The Search and Select: FusionAttributeName dialog box appears.
5. Enter the name of custom attribute that you created.
6. Click Search.
7. Select the custom attribute from the search results.
8. Click OK.
9. Click Save and Close on the Manage Social Data and Insight Cloud Attribute Mapping and Preferences page.

The mapping of the Sales Cloud contact attributes with the Data Cloud Social attributes is now complete.

Adding the Custom Social Attributes to Select Fields to Enrich Page: Procedure

To enrich a Sales Cloud custom social attribute it must be displayed on the Select Fields to Enrich page. The following are the steps to add the custom social attributes to display on the Select Fields to Enrich page:

1. Click the Preferences tab on the Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences Page.
2. Search for the newly mapped attributes in the Social Data Cloud and Insight Attribute column.
3. Select the Display on Select Fields to Enrich page options for the newly mapped attributes.
4. Click Save and Close.

You can see the newly created attributes on the Select Fields to Enrich page. In the matching screen, you can select the Data Cloud data to overwrite Sales Cloud data.

Similarly, you can enable the contact social attributes to display on the Select Fields to Enrich page by navigating to the Contact Enrichment Preference section on the Manage Social Data and Insight Cloud Attribute Mapping and Enrichment Preferences page.

Enriching Oracle Sales Cloud Account and Contact Data with Social Attributes: Procedure

You can enrich Oracle Sales Cloud account and contact data with social attributes using the Sales Cloud simplified user interface.

Enriching Oracle Sales Cloud Account Data with Social Attributes

Complete the following steps to enrich Oracle Sales Cloud Account and Contact Data with Social Attributes:

1. Navigate to the Accounts simplified UI page.
2. Select the account that you must enrich with new custom fields.
3. Click on Actions on the Edit Account: {Account Name} page.
4. Select the Enrich Account option.

The Select Fields to Enrich page appears with the newly added social attributes.

5. Select the Data Cloud values as the source for the fields that you must enrich.

6. Click Enrich.

You can view the enriched fields in the Edit Account: {Account Name} page if data cloud has values.

7. Click Save and Close.

Enriching Oracle Sales Cloud Contact Data with Social Attributes
Complete the following steps to enrich the Oracle Sales Cloud contact data with social attributes:

1. Navigate to the Contacts simplified UI page.

2. Select the contact that you must enrich with new custom fields.

3. Click Actions.

4. Select the Enrich Contact option.

The Select Fields to Enrich page appears with the newly added social attributes.

5. Select the Data Cloud values as the source for the fields that you must enrich.

6. Click Enrich.

You can view the fields in the Edit Contact {Contact Name}: Profile page if data cloud has values.

7. Click Save and Close.

Publishing the Sandbox Used for Creating Custom Fields
The final step is to publish the sandbox used to create custom fields to get these changes across. Complete the following steps to publish the sandbox:

1. Navigate to the Manage Sandboxes page.

2. Select the appropriate sandbox.

3. Click Publish.

4. Click Close.
Configure Oracle Social Data and Insight Cloud Service for Data Enrichment and Address Verification
17 Define Data Quality

Setting Up Data Quality Using Enterprise Data Quality: Explained

Oracle provides a robust data quality solution for Oracle Cloud applications through a ready-to-use integration with a product called Oracle Enterprise Data Quality (EDQ). EDQ is a complete data quality product with capabilities such as profiling, standardization, matching and merging, and address verification, which is also available as a standalone product.

Setting up data quality using EDQ involves two operations, matching and address cleansing.

Matching is a process that identifies the potential duplicates for account, contact, and address. You can identify the potential duplicate records in real-time when you create a customer record, and in batch mode for existing records.

Address cleansing is a process that corrects and validates address data, based on postal requirements. For example, if you enter valid values for postal code, city, and country, the data quality functionality may return a value for state. Likewise, if you enter valid values for city, state, and country, the data quality functionality automatically supplies a postal code value.

The data quality services receive matching or cleansing requests, such as duplicate prevention or address validation, from a variety of consuming applications. The data quality service then calls the EDQ service based on the configuration for further processing. The primary components of the Oracle Applications Cloud data quality architecture are as follows:

- OSC-EDQ Connector in the CRM Server - Receives requests from Oracle Cloud applications for address validation, matching, and so on
- Oracle Address Validation Service - Performs address validations
- Shared Sharing Database - Handles batch jobs
- EDQ Matching Server - Performs address matching
The following figure illustrates the various architecture components of the Oracle Applications Cloud data quality solution and how Oracle Cloud applications interface with the EDQ engine.

Defining data quality involves setting up two components, matching and address cleansing. As part of implementing these components, you must perform the following related setup tasks in the Setup and Maintenance work area from the Data Quality Foundation functional area of the Customer Data Management offering:

- Manage Server Configurations
- Manage Enterprise Data Quality Matching Configurations
- Manage Enterprise Data Quality Cleansing Configurations

**Note:** You must set up the server configurations prior to implementing EDQ matching or cleansing, depending on the data quality requirements.
Manage Server Configurations

You have the option of enabling or disabling the predefined server configurations for EDQ integration by selecting or deselecting the related server configuration. Enabling a predefined matching or cleansing server configuration lets you benefit from both the real-time and batch matching or cleansing capabilities.

- For more information on managing EDQ server configurations, see Enterprise Data Quality Server Configurations: Explained.

Manage Enterprise Data Quality Matching Configurations

You have the option of using either the predefined matching configurations shipped ready-to-use or copying and adapting it to your address matching requirements. Real-time matching identifies duplicate account, contact, and address entries in Oracle Applications Cloud. Batch matching identifies duplicate entries within a set of records or a batch of the same type in the database. For more information, see Managing Enterprise Data Quality Matching Configurations: Procedures.

Manage Enterprise Data Quality Cleansing Configurations

You have the option of using either the predefined cleansing configuration shipped ready-to-use or copying and adapting it to your address cleansing requirements. Real-time address cleansing performs cleansing, standardization, and validation of addresses during the data entry process. Batch address cleansing performs cleansing operations on a set of address records in the database. For more information, see Managing Enterprise Data Quality Cleansing Configurations: Procedures.

Server Configurations

Enterprise Data Quality Server Configurations: Explained

Enterprise Data Quality (EDQ) server configurations are predefined configurations for EDQ integration. Each EDQ server configuration is associated with a data quality management operation such as matching or cleansing. You can enable and disable a data quality management operation by selecting or deselecting the related EDQ server configuration.

Two predefined server configurations are available for EDQ:

- EDQ Real-Time and Batch Basic Match Server
- EDQ Real-Time and Batch Basic Cleanse Server

EDQ Real-Time and Batch Basic Match Server

Enable this configuration if you want to use the matching capabilities. Enabling this configuration lets you benefit from both real-time and batch matching features in Oracle Sales Cloud. Real-time matching is used to prevent entry of duplicate records. Batch data matching is used for identifying duplicates of existing records.
EDQ Real-Time and Batch Basic Cleanse Server
Enable this configuration if you want to use the cleansing capabilities. Enabling this configuration lets you benefit from both real-time and batch cleansing features in Oracle Sales Cloud. Real-time address cleansing service enables the sales representative to verify the addresses while creating a contact or an account. Batch address cleansing enables the sales administrator or data steward to cleanse a set of addresses that already exist in Oracle Sales Cloud in bulk and during import process.

Matching Configurations

Enterprise Data Quality Matching Configurations: Explained
Enterprise Data Quality (EDQ) matching configurations comprise attributes and parameters for real-time and batch matching of Oracle Sales Cloud entities to prevent duplicate entries and identify existing duplicates. EDQ real-time and batch matching are available for account, contact, and address entities. You have the option of using either the predefined ready-to-use configuration or copying and adapting it to your address matching requirements.

The predefined EDQ matching configurations applicable for both real-time and batch matching are:
- Account Duplicate Identification
- Contact Duplicate Identification
- Address Duplicate Identification

These configurations are used to identify the duplicate account, contact, and address entries in Oracle Sales Cloud. You can review and edit these predefined matching configurations to optimize the matching functionality to meet your needs.

EDQ Matching Process
In EDQ matching process, the record added or updated to the application for comparison is called a driver record. And, the records that are compared with the driver record are called the candidate records. Driver records are compared with each other, but candidate records are never compared with other candidates. The EDQ real-time matching process compares a single driver record against many candidates and returns possible duplicate records based on matching attributes and threshold. The batch matching process compares all driver records of the same type, such as account, contact, and address, and identifies all possible matches within these sets of records.

The batch matching process runs in two modes, full batch and incremental batch. While the full batch mode matches all records against each other, the incremental mode matches a subset of records against all of their selected candidates. In batch matching, separate matching templates are provided that lets you specify different match rules. For example, you may want to minimize user intervention of adding customers in front end applications, and perform an exhaustive match on a regular basis.

The EDQ matching process for real-time and batch matching runs the EDQ Cluster Key Generation service and EDQ matching service for duplicate identification. The EDQ Cluster Key Generation service is called whenever a record is added or updated in an application. This service generates keys for records added as well as for the records that are updated in Oracle Sales Cloud. These generated keys are stored in Oracle Sales Cloud, which are then used to select the candidate records that may match to the data in the application.

The selected candidate records along with the driver record are returned to the EDQ matching service. Then, this service examines the records and decides which of the candidate records are a good match with the driving record. Once EDQ matching service arrives at the best match, it assigns a score to every duplicate record identified based on the strength of the match.
For more information about the EDQ matching process, see the Oracle Enterprise Data Quality Customer Data Services Pack Matching Guide at

http://docs.oracle.com/cd/E48549_01/doc.11117/e40737/toc.htm

**Match Attributes**

Match attributes define the attributes that are used for real-time and batch matching of the account, contact, and address entities to identify duplicate entries. You use two types of attributes for matching:

- EDQ Match Identifier: Specifies the EDQ attribute that you want to use for matching
- Oracle Sales Cloud Attributes: Specifies the Oracle Sales Cloud attribute that you want to use for matching

You can map the attributes in Oracle Sales Cloud with the corresponding EDQ attributes to create an attribute mapping. For example, for the Name EDQ attribute, you can select the Org.OrganizationName as the corresponding Organization attribute to create a mapping. You can define such attribute mappings for real-time matching, batch-data matching, or both.

When you map the attributes in Oracle Sales Cloud with the corresponding EDQ attributes, you create a matching configuration setting for identifying duplicate entries. These settings are stored as matching keys in Oracle Sales Cloud. Whenever you change the attribute mappings, you must regenerate matching key values for the new or updated accounts, contacts, and addresses. You can regenerate matching key values using the **Rebuild Keys** option in the Edit Matching Configuration page.

**Match Configuration Parameters**

Matching configuration parameters are system-level parameters that control aspects of the data quality matching services.

The following parameters control matching operations for identification of duplicate entries such as account, contact, and address in the database, between database and sets of data, such as import batches, or within sets of data to resolve them from merging or linking.

**Score Threshold**

- Parameter Value: Between 0 and 100. Default Value: 90
- Parameter Description: Specifies the score above which the matched records are returned by the matching service. Records equal to or greater than the score are considered as matches and the records with scores less than the threshold are rejected.

**Match Results Display Threshold**

- **Note:** This match configuration parameter is enabled only for real-time matching.
- Parameter Value: Between 0 and 100. Default Value: 10
- Parameter Description: Controls the number of matched records that are returned by the real-time matching.

**Preview Configuration**

The Preview Configuration option lets you enter the following parameters to identify and view the duplicate matching records in real-time without rebuilding the keys.

- Cluster Key Level: Returns records based on the cluster key level.
- Score Threshold: Returns records based on score threshold.
- Maximum Candidates: Returns records based on maximum candidates.
- Match Results Display Threshold: Returns records based on the match results display threshold value.
Review Configuration Results

The Review Configuration Results option lets you check if the input address entered for matching in the Edit Matching Configuration page returns the expected matched address after the rebuilding of keys. Alternatively, in the Review Configuration Results page, you can enter the attribute information for one or more of the following matching configuration parameters that you want to match:

- Cluster Key Level: Returns records based on the cluster key level.
- Score Threshold: Returns records based on score threshold.
- Maximum Candidates: Returns records based on maximum candidates.
- Match Results Display Threshold: Returns records based on the match results display threshold value.

Managing Enterprise Data Quality Matching Configurations: Procedures

You can perform the following tasks as part of managing Enterprise Data Quality (EDQ) matching configurations.

- Copying a predefined Enterprise Data Quality matching configuration
- Editing a copy of the predefined Enterprise Data Quality matching configuration

Copying a Predefined Enterprise Data Quality Matching Configuration

To copy or make a duplicate of a predefined Enterprise Data Quality matching configuration, complete these steps:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Matching Configurations
2. On the Manage Enterprise Data Quality Matching Configurations page, select the Account Duplicate Identification match configuration, and click Duplicate.
3. Click Yes in the Warning dialog box.
4. Click Save to save the copy of the predefined configuration.

\[Note:\] You must save the copy of the predefined configuration, if you want to edit it.

5. Repeat Steps 2 to 4 to create copies of the predefined configuration for the Contact Duplicate Identification or Address Duplicate Identification match configurations.

Editing a Copy of the Predefined Enterprise Data Quality Matching Configuration

To edit a copy of the predefined Enterprise Data Quality matching configuration, complete these steps:

\[Note:\] You can't edit the predefined Enterprise Data Quality configuration. You can only make a copy of it and edit it by following this procedure.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
2. On the Manage Enterprise Data Quality Matching Configurations page, select the copy of **Account Duplicate Identification** match configuration that you created in "Copying a Predefined Enterprise Data Quality Matching Configuration" section, and click **Edit**.

3. Select the **Active** check box to set the Account Duplicate Identification match configuration as the active configuration.

   ✏️ **Note:** By default, the predefined configurations are always set to active. If there are one or more copies of the predefined configurations, then you can set any of them to active by selecting the Active check box. At any given point in time, only one configuration can be active.

   ✏️ **Note:** Also, note that the Usage option is set to Both, which indicates that the configuration is for both real-time and batch matching.

4. Click **Yes** in the Warning dialog box to set this configuration as active.

5. In the **Match Attributes** section, perform the following steps:

   a. Select a row to edit the mapping, and click the drop-down button for the selected row.
   b. Select the relevant attribute from the list.
   c. If the list doesn’t display the attribute that you want for the mapping, then click **Search** to search for the attribute.
   d. Select the relevant option and click **OK**.

6. In the **Cluster Key Level** drop-down list, select **Typical**.

7. In the **Score Threshold** field, enter **85**. In the **Match Results Display Threshold** field, enter **20**.

   ✏️ **Note:** The Match Results Display Threshold option isn’t available for Batch.

8. Click **Save** to save your changes.

---

### Managing Custom Match Rules and Scoring: Explained

This topic describes how to enable the custom match rules and scoring functionality.

Use the following procedure to enable custom match rules for account and contact. Note that custom match rules are available only for account and contact.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Matching Configurations

2. On the Manage Enterprise Data Quality Matching Configurations page, drill down on the predefined or the user-defined matching configuration, for which you want to enable or disable custom match rules and scoring.

3. Select Custom from the **Scoring Type** drop-down list on the Edit Match Configuration page.

4. Click **Save** or **Save and Close**
Creating Custom Match Rules: Procedure

You can use the custom match rule and scoring functionality to create your own match rules and scores based on your business requirements.

Use the following procedure to create custom match rules.

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Matching Configurations

2. On the Manage Enterprise Data Quality Matching Configurations page, drill down on the predefined or the user-defined matching configuration for which you want to create or update predefined rules.

3. Click **Manage Match Rules** on the Edit Match configuration page.

4. On the Manage Match Rules page click New. Alternatively, you can click Duplicate to create a new rule based on an existing predefined or user-defined match rule.

5. Enter the following values for the newly created or copied match rule:
   - **Rule Name**: The name of the new rule.
   - **Match Rule Score**: The score that you assign to the rule. The value must be between 1 and 100.
   - **Rule Attribute**: The standard or predefined attributes that must be used in the custom match rules. Ensure that the syntax and spelling are exact.

6. Click **Save** or **Save and Close**.

Selecting Sources of Match Rules and Scoring: Points to Consider

The Customer Data Quality application comes with two options for match rules and scoring, predefined match rules (EDQ match rules) and custom match rules (Customer Data Management match rules). You can use a drop-down button on the Enterprise Data Quality Matching Configuration page to select the match rules and scoring option best suited for your business requirements.

The predefined EDQ match rules include a single, view-only matching rule for each object such as account, contact, and address. These match rules cannot be edited, scores cannot be changed, and no new rules can be added.

In case the predefined match rules are not suitable for your business requirements, you should enable custom match rules and scoring. You should be able to turn on custom scoring by selecting Custom from the Scoring Type drop-down list on the Manage Enterprise Data Quality Matching Configurations UI page. You can use this functionality to create your own match rules and scores.

Managing Key Generation: Explained

The EDQ matching process for real-time and batch matching makes use of the EDQ Cluster Key Generation service and the EDQ matching service for duplicate identification. Successful key generation is critical to duplicate identification. Key generation identifies similar parties and assigns a key to each. When a matching configuration is made active, the application passes a set of keys (subset of parties) to the EDQ matching service to process for duplicate identification.
The EDQ Cluster Key Generation service must be run whenever a record is added or updated in the application. This service generates keys for records added as well as for the records that are updated in the application. If keys are not generated, duplicate identification fails.

**Scheduling Key Generation**
You can schedule incremental key generation for an active matching configuration using the schedule key generation option on the Edit Matching Configuration page. This generates keys for records that do not have a key or if the key time stamp is older than that of the records. You must incrementally generate matching key values for the new or updated accounts, contacts, and addresses.

**Rebuilding Keys**
You must rebuild keys before activating a new configuration. You must rebuild keys if you change match configuration mappings or if you think that the keys are no longer valid because of updates to the records. You can regenerate matching key values using the Rebuild Keys option in the Edit Matching Configuration page.

**Specifying Real-time and Batch Key Generation Options**
You can specify different key generation options for batch matching and real-time matching. Take for example the cluster key level parameter that has the values, limited, typical, or exhaustive. It is possible to select one value of this parameter, say limited, for batch matching and another, say exhaustive, for real-time matching, depending on how tightly you want the data quality engine to match records.

**Reviewing Key Generations Status**
You can search for key generation jobs and review the status of each key generation job on the Manage Key Generation page. The following table describes the various possible key generation statuses for a matching configuration.

<table>
<thead>
<tr>
<th>Key Generation Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pending</td>
<td>Key generation for the configuration is required.</td>
</tr>
<tr>
<td>Processing</td>
<td>Key generation for the configuration is in progress.</td>
</tr>
<tr>
<td>Review Required</td>
<td>Key generation for this configuration needs review.</td>
</tr>
<tr>
<td>Ready</td>
<td>Key generation for this configuration is complete.</td>
</tr>
</tbody>
</table>

**Identifying Duplicates Using Web Services: Worked Example**
This example describes how to identify duplicates using Web services leveraging the Enterprise Data Quality (EDQ) engine. The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of service is set up in Oracle Enterprise Manager?</td>
<td>DQRealTimeService</td>
</tr>
</tbody>
</table>
Decisions to Consider | In This Example
--- | ---
Which duplicate entries do I want to identify using Web Services? | Contact

What is the associated configuration code for Contact? | DQ_SEED_CONTACT_DUP_IDENTIFICATION

What record type is associated with the data quality engine? | Driver

To identify duplicates using Web services, complete the following tasks:

- Extract the web services URL
- Derive the request payload
- Test the web service
- Test the match results

Prerequisites

1. Enable EDQ Real time and Batch Basic Match Server in the Manage Data Quality Server Configurations page.
2. Identify the configuration code for the EDQ match configuration that you want to perform from the Setup and Maintenance work area by going to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Enterprise Data Quality Matching Configuration

Extracting the Web Services URL

1. Sign in to the Oracle Enterprise Manager using the WebLogic Server credentials.
2. Select Oracle Fusion Customer Relationship Management from the navigation tree, and then select Oracle Fusion Applications.
3. From the tree, select CrmCommonApp, and then select CrmCommonApp (CRMCommonServer_1).
4. In the Web Services pane on the page, click Test for the DQRealTimeServiceSoapHttpPort port.
5. In the Test Web Service pane, copy the URL of a WSDL that appears in the WSDL field until "?wsdl", and then paste to a notepad.

Deriving the Request Payload

1. Launch the WSDL URL in a Web browser to open the DQRealTimeService endpoint page.
2. In the DQRealTimeServiceSoapHttpPort pane, select matchPerson from the Operation list.
3. In the Request Payload pane, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataQualityRequestId</td>
<td>1</td>
</tr>
<tr>
<td>ConfigCode</td>
<td>DQ_SEED_CONTACT_DUP_IDENTIFICATION</td>
</tr>
</tbody>
</table>

4. In the DataQualityParam section, complete the fields, as shown in the following table.
In the **DataQualityPerson** section, enter the minimum details of the person such as the first name, last name, and address that you want to match. The following table contains sample details of a person that you want to match.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataQualityRequestId</td>
<td>1</td>
</tr>
<tr>
<td>DataQualityRecordType</td>
<td>Driver</td>
</tr>
<tr>
<td>PersonFirstName</td>
<td>Smith</td>
</tr>
<tr>
<td>PersonLastName</td>
<td>Wilson</td>
</tr>
<tr>
<td>AddressLine1</td>
<td>401 Island Parkway</td>
</tr>
<tr>
<td>City</td>
<td>Redwood</td>
</tr>
<tr>
<td>Country</td>
<td>US</td>
</tr>
</tbody>
</table>

6. Click the **XML Source** option.

![Note:](image)

This option appears next to the Operation list.

7. Copy the XML source and paste to a notepad.

8. Select **matchLocation** and repeat steps 1 to 7 to identify duplicates for address or select **matchOrganization** and repeat steps 1 to 7 to identify duplicates for account.

### Testing the Web Service

1. Open the Oracle Fusion Service Tester page.
2. In the **WebService URL** field, paste the WSDL URL that you derived from Step 5 of the "Extracting the Web Services URL" section.
3. Enter the user name and password credentials.
4. In the **Input Argument** pane, paste the XML source that you derived from Step 7 of the "Deriving the Request Payload" section.
5. Click **Test Web Service**. The Output Payload pane displays the output payload.

### Testing the Match Results

1. Copy and paste the output payload to a notepad.
2. Verify if the COMPLETED and SUCCESS messages are displayed in the ErrorCode and Message tags, respectively.
3. Search by the person first name to identify the number of duplicates displayed.
4. Verify the match results.
Cleansing Configurations

Enterprise Data Quality Cleansing Configurations: Explained

Enterprise Data Quality (EDQ) cleansing configurations comprise attributes and parameters for real-time and batch cleansing of addresses. You have the option of using either the predefined configuration shipped out-of-the-box or copying and adapting it to your address cleansing requirements. The predefined EDQ address cleansing configuration is named as Real-Time and Batch Address Cleansing. As part of defining and managing EDQ cleansing configurations, you can review and edit the predefined cleansing configuration.

EDQ real-time address cleansing includes an online, interactive service to cleanse and validate addresses during the data entry process either through a UI or any other service creating address data into the registry. The real-time address cleansing service parses the input address and validates it against the country-specific postal address reference databases, such as United States Postal Service (USPS), Canada Post. The real-time address cleansing service runs in two modes:

- **Verify**: The verify mode lets you parse, verify, cleanse, transliterate, and format the input address data. This mode checks the reference data and returns the best match (1 to 1).
- **Search**: The search mode lets you search all installed data and return multiple results (1 to Many).

EDQ batch address cleansing performs address cleansing, verification, standardization, and validation for a subset or entirety of the address records in the registry, or as part of a data import process. Batch address cleansing service can only be run in the Verify mode that parses and cleanses the input address data and enables output to be displayed in either native or Roman characters.

**Note**: For more information on address verification, see the “Manage Sales Cloud and Data Cloud Integration: Explained” topic in the Related Topics section.

Cleansing Attributes Mapping

The mapping of the EDQ cleansing attributes with the corresponding Oracle Sales Cloud attributes to create cleansing configurations is called cleansing attributes mapping. Oracle Sales Cloud provides the following attributes for address cleansing:

- **Input Address Attribute**: The attribute used to describe the input Oracle Sales Cloud address for address cleansing is called the input address attribute.
- **Output Address Attribute**: The attribute used to describe the output Oracle Sales Cloud address after the address cleansing process is called the output address attribute.
- **EDQ Attribute**: The Oracle Sales Cloud attribute that is used for cleansing.

You can determine what input address attribute you want to map to the Oracle Sales Cloud EDQ attribute for address cleansing. An EDQ attribute is used to describe a distinct item of information that relates to a record. For example a City attribute might describe the city details of a Customer record. Once the mapping is established, the input address is verified, cleansed, and validated in Oracle Sales Cloud. You can map the cleansed address described in the Oracle Sales Cloud EDQ attribute to the corresponding output address attribute.

In this example, the sample input data contains a part of the postal address and lacks the complete street address and state information as shown in the following table.
After the mapping, the input address is verified, validated, and corrected. The cleansed output address data is shown in the following table.

<table>
<thead>
<tr>
<th>Input Address Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address1</td>
<td>8500 Normandale Lake Suite 710</td>
</tr>
<tr>
<td>City</td>
<td>Bloomington</td>
</tr>
<tr>
<td>Postal Code</td>
<td>55437</td>
</tr>
</tbody>
</table>

Cleansing Configuration Parameters

Cleansing configuration parameters are system-level parameters that control aspects of the data quality cleansing services. The EDQ cleansing configuration includes real-time and batch cleansing configuration parameters.

The following parameters control real-time and batch address cleansing, standardization, and validation operations for a subset or entirety of the address records in the database, or as part of a data import process.

**Default Country**
- Parameter Description: Used to specify the country to cleanse the address, if no identifiable country can be found in an input address.

**Output Casing**
- Parameter Value: Upper case, Lower case, Mixed case. Default Value: Mixed
- Parameter Description: Used to specify the letter case for an output address.

**Minimum Verification Level**
- Parameter Value: Between 1 and 5. Default Value: 3
- Parameter Description: Used to specify the level of verification to which the input data matches the available reference data during the verification process.

**Minimum Verification Score**
- Parameter Value: Between 0 and 100. Default Value: 90
• Parameter Description: Used to specify the similarity between the address entry and closest reference data match as a percentage between 0 (no match) and 100 (perfect match).

Correct PartiallyVerified Addresses: Determines if you want to correct the addresses entry that are partially verified.

Correct Ambiguous Addresses: Determines if you want to correct the unclear addresses entry and resolve it to the correct address.

Review Configuration Results
The Review Configuration Results option lets you check if the input address entered for cleansing in the Edit Cleansing Configuration page returns the expected cleansed address. Alternatively, in the Review Configuration Results page, you can enter the attribute information for one or more of the following cleansing configuration parameters that you want to cleanse:

• Minimum Verification Level: Returns records based on the minimum verification level.
• Minimum Verification Score: Returns records based on the minimum verification score.
• Processing Mode: Returns records based on the processing mode.

Then, verify if the records returned for the cleansed address meets your expectations.

Related Topics
• Configuring Integration to Data Cloud: Procedure

Managing Enterprise Data Quality Cleansing Configurations: Procedures
You can perform the following tasks as part of managing Enterprise Data Quality (EDQ) cleansing configurations:

• Copying a predefined Enterprise Data Quality cleansing configuration
• Editing a copy of the predefined Enterprise Data Quality cleansing configuration

Copying a Predefined Enterprise Data Quality Cleansing Configuration
To copy or make a duplicate of a predefined Enterprise Data Quality cleansing configuration, complete these steps:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Cleansing Configurations
2. On the Manage Enterprise Data Quality Cleansing Configurations page, select the Address Cleansing configuration, and click Duplicate.
3. Enter a name in the Name field and click Save to save your changes.

Editing a Copy of the Predefined Enterprise Data Quality Cleansing Configuration
To edit a copy of the predefined Enterprise Data Quality cleansing configuration, complete these steps:

Note: You can’t edit the predefined Enterprise Data Quality configuration. You can only make a copy of it and edit it by following this procedure.
1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Cleansing Configurations

2. On the Manage Enterprise Data Quality Cleansing Configurations page, select the **Address Cleansing** configuration and click **Edit**.

3. Select the **Active** check box to set the address cleansing configuration as the active configuration.

   **Note:** By default, the predefined configurations are always set to active. If there are one or more copies of the predefined configurations, then you can set any of them to active by selecting the Active check box. At any given point in time, only one configuration can be active.

   **Note:** Also, note that the Usage option is set to Both, which indicates that the configuration is for both real-time and batch matching.

4. Click **Yes** in the Warning dialog box to set this configuration as active.

5. In the **Cleansing Attributes Mapping** section, select an attribute in the Address column, enter a corresponding attribute in the Attributes column, and then map it with the corresponding attributes in the Attributes column to create an attribute mapping.

6. In the Cleansing Configuration Parameters section, perform the following tasks:
   a. In the Default Country drop-down list, select the relevant country name.
   b. In the Output Casing drop-down list, select Upper Case to print the address in upper case.
   c. In the Minimum Verification Level drop-down list, select 3-Verified to Thoroughfare Level.
   d. In the Minimum Verification Score drop-down list, select 80.
   e. Select the Correct Partially Verified Addresses check box.
   f. Select the Correct Ambiguous Addresses check box.

7. Click **Save** to save your changes.

**Cleansing Addresses Using Web Services: Worked Example**

This example describes how to cleanse addresses using Web services leveraging the Enterprise Data Quality (EDQ) engine. The following table summarizes key decisions for this scenario.

<table>
<thead>
<tr>
<th>Decisions to Consider</th>
<th>In This Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What type of service is set up in Oracle Enterprise Manager?</td>
<td>DQRealTimeService</td>
</tr>
<tr>
<td>Which processing mode do I want to use for address cleansing?</td>
<td>Search: This mode lets you search all installed data and return multiple results.</td>
</tr>
<tr>
<td>What is the associated configuration code for address cleansing?</td>
<td>DQ_SEED_LOC_CLEANSE</td>
</tr>
</tbody>
</table>
Decisions to Consider | In This Example
--- | ---
What record type is associated with the data quality engine? | Driver

To cleanse addresses using Web services, complete the following tasks:

- Extract the web services URL
- Derive the request payload
- Test the web service
- Test the cleanse results

Prerequisites

1. Enable **EDQ Real time and Batch Basic Cleanse Server** in the Manage Data Quality Server Configurations page.
2. Identify the configuration code for the EDQ cleansing configuration that you want to use from the Setup and Maintenance work area by going to the following:
   - Offering: Customer Data Management
   - Functional Area: Data Quality Foundation
   - Task: Manage Enterprise Data Quality Cleansing Configurations

The configuration code is displayed in the Manage Enterprise Data Quality Cleansing Configurations page.

Extracting the Web Services URL

1. Sign in to the Oracle Enterprise Manager using the WebLogic Server credentials.
2. Select **Oracle Fusion Customer Relationship Management** from the navigation tree, and then select **Oracle Fusion Applications**.
3. From the tree, select **CrmCommonApp**, and then select **CrmCommonApp (CRMCommonServer_1)**.
4. In the **Web Services** pane on the page, click **Test** for the DQRealTimeServiceSoapHttpPort port.
5. In the **Test Web Service** pane, copy the URL of a WSDL that appears in the **WSDL** field until "?wsdl", and then paste to a notepad.

Deriving the Request Payload

1. Launch the WSDL URL in a Web browser to open the DQRealTimeService endpoint page.
2. In the **DQRealTimeServiceSoapHttpPort** pane, select **cleanseAddress** from the Operation list.
3. In the **Request Payload** pane, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DataQualityRequestId</td>
<td>1</td>
</tr>
<tr>
<td>ConfigCode</td>
<td>DQ_SEED_LOC_CLEANSE</td>
</tr>
</tbody>
</table>

4. In the **DataQualityParam** section, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ParamName</td>
<td>ProcessingMode</td>
</tr>
</tbody>
</table>
Note: In the **ParamValue** field, if you enter Verify, it checks the input address data and returns the best match.

5. In the **DataQualityPerson** section, enter the address that you want to cleanse. For example, complete the fields, as shown in the following table.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DataQualityRequestId</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>DataQualityRecordType</strong></td>
<td>Driver</td>
</tr>
<tr>
<td><strong>AddressLine1</strong></td>
<td>401 Island Parkway</td>
</tr>
<tr>
<td><strong>Country</strong></td>
<td>US</td>
</tr>
</tbody>
</table>

6. Click the **XML Source** option.

   Note: This option appears next to the Operation list.

7. Copy the XML source and paste to a notepad.

### Calling the Web Service

1. Open the Oracle Fusion Service Tester page.
2. In the **WebService URL** field, paste the WSDL URL that you derived from Step 5 of the "Extracting the Web Services URL" section.
3. Enter the user name and password credentials.
4. In the **Input Argument** pane, paste the XML source that you derived from Step 7 of the "Deriving the Request Payload" section.
5. Click **Test Web Service**. The Output Payload pane displays the output payload.

### Testing the Cleanse Results

1. Copy and paste the output payload to a notepad.
2. Verify if the COMPLETED and SUCCESS messages are displayed in the ErrorCode and Message tags, respectively.
3. Verify the cleansed address.

### Enabling Search Mode for Address Verification Cloud Service

The Address Verification Cloud Service comes with two processing modes, Verify and Search. You can use this functionality to verify an address in real-time while entering information on the Create Accounts or the Create Contacts page.
Out of the box, only the Verify mode is available to customers. When the Verify mode is enabled and you do real-time address verification on the Create or Edit Accounts or Contacts page, the service returns a single verified address that matches the address information you entered on the page.

The search mode is available only to the Oracle Data Cloud Address Verification Unlimited License customers from Release 11 Patch Bundle 15. When the Search mode is enabled and you do real-time address verification on the Create or Edit Accounts or Contacts page, the service returns a list of the suggested verified addresses that match the address information you entered. You can then select the appropriate address from the list. You must create a new profile option and configure the address verification process mode to enable search mode. This topic describes how Oracle Data Cloud Address Verification Unlimited License customers can enable the DaaS Address Verification Search Mode.

Create New Profile Option for Enabling Search Mode

Perform the following steps to create a new profile option that you require to enable search mode.

1. Sign in as a setup user such as, Sales Administrator, Master Data Management Application Administrator, or Application Implementation Consultant.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Application Extensions
   - Task: Manage Applications Core Profile Options
3. On the Manage Applications Core Profile Options page, click New from Actions. The Create Profile Option page appears.
4. Enter the following information in the Create Profile Option page:
   - Profile Option code: ORA_ZCQ_AV_UNLIMITED_LIC
   - Profile Display Name: ORA_ZCQ_AV_UNLIMITED_LIC
   - Application: Trading Community Data Quality
   - Module: Application Common
   - Provide appropriate Description
   - Provide appropriate Start Date and End Date.
5. Click Save and Close.
   Now you can see the new profile option in the Manage Applications Core Profile Options page.
6. Select the Site Enabled and Updatable check boxes in the Profile Options Levels section.
7. Click Save and Close.
8. Navigate to the Manage Applications Core Administrator Profile Values task.
9. Search for the Profile Option Code ORA_ZCQ_AV_UNLIMITED_LIC.
10. Click New under the ORA_ZCQ_AV_UNLIMITED_LIC: Profile Values section.
11. Select Site as the profile level and Y as the profile value.
12. Click Save and Close.

Configure Address Verification Processing Mode

You can configure the address verification process mode by performing the following tasks:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
Functional Area: Data Quality Foundation
Task: Manage Enterprise Data Quality Cleansing Configurations

2. On the Manage Enterprise Data Quality Cleansing Configurations page, click **Address Cleansing**.

   The Edit EDQ Cleansing Configuration: Address Cleansing page appears.

3. Select Search from the **Processing Mode** drop down list in the **Cleansing Configuration Parameters** section.

   Note: You can select either Verify or Search mode from the Processing Mode drop down list according to your requirements. Select Verify mode if you want only one verified address to be returned while verifying an address on the Create Accounts or Create Contacts page. Select Search mode to get a list of the suggested verified addresses that match the address you entered so that you can select the appropriate address from the list.

4. Click **Save and Close**.

### Verify Search Mode on Account or Contact Creation Page

You can verify the functionality of the Search mode while creating a new account or contact. Perform the following steps to verify an address in the search mode while creating a new account:

1. Navigate to Accounts work area.
2. Click **Create Account**.
3. Enter Address Line 1, City, and State of the account that you want to create on the Create Accounts page.
4. Click **Verify Address**.

   Note: If you click Verify Address after populating all the fields in the Address section of the Create Address page, you will get only one verified address with the complete match.

5. Select the correct address by clicking **Select** for the appropriate address from the list of suggested verified addresses.
6. Click **OK**.

   When you click OK the selected address gets populated in the Address section of the Create Account page.
7. Enter account details on the Create Account page.
8. Click **Save and Close**.

### FAQs for Integrating with Oracle Enterprise Data Quality Engine

What's the difference between matching configurations and matching server configurations?

Matching configurations include parameters that can be set at the matching configuration level and modified depending on cleansing strategy, data, and result requirements. You can use these configurations during real-time matching to prevent duplicate entries and during batch matching to identify existing duplicates.
Matching server configurations provide the address and port of the data quality server used to process match requests. These configurations show both matching configuration and server configuration level parameters along with their type and cardinality. The parameters set at the server level are applicable to all the matching configurations.

What's the difference between cleansing configurations and cleansing server configurations?

Cleansing configurations include parameters that can be set at the cleansing configuration level and modified depending on cleansing strategy, data, and result requirements. You can use these configurations to cleanse address during data entry, and to cleanse and validate existing addresses to ensure data accuracy.

Cleansing server configurations provide the address and port of the data quality server used to process cleanse requests. There are no server configuration parameters for cleansing.

What's the difference between real-time duplicate prevention and duplicate identification?

Real-time duplicate prevention identifies all possible duplicate records that may exist in the database for an entered record. This prevents entering of duplicate entities, such as organization, person, or location, into the database.

Duplicate identification identifies potential duplicate entities already existing in the database using batch matching, and resolves the actual duplicates by merging or linking.

What's the difference between real-time address cleansing and batch address cleansing?

Real-time address cleansing is an online, interactive service to cleanse and validate addresses during the data entry process. Batch address cleansing cleanses and validates addresses that already exist in the database or are imported into it.
18 Define Customer Hub Configuration

Run Request Dispatch Job

Run Request Dispatcher Process: Explained

You can use the Run Request Dispatcher process to manage and monitor cleansing and duplicate identification batches, and duplicate resolution requests.

Run the request dispatcher process in the following modes:

- Basic: To submit the request dispatcher job for immediate processing.
- Advanced: To schedule the process to run either immediately or at specified intervals, such as every hour or every day.

Customer Hub Profile Options

Customer Hub Profile Options: Explained

Customer Hub profile options configure data access and processing for data governance, duplicate identification processes, data cleansing processes, and duplicate resolution requests.

You can set the Hub profile option values only at the site level using the predefined profile option definitions. The following table lists the Customer Hub profile options that you can configure in the Setup and Maintenance work area using the following:

- Offering: Customer Data Management
- Functional Area: Customer Hub
- Task: Manage Customer Hub Profile Options

<table>
<thead>
<tr>
<th>Profile Option Name</th>
<th>Profile Option Definition</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZCH_CLNS_PROC_BT_SIZE</td>
<td>Data Cleansing Process Batch Size</td>
<td>The transaction batch size for the data cleansing process. Set this value based on available system resources.</td>
<td>10000</td>
</tr>
<tr>
<td>ZCH_DEDUP_REQUEST_TYPE_OPTION</td>
<td>Resolution Request Type Default</td>
<td>The default request type for the duplicate resolution requests.</td>
<td>Merge</td>
</tr>
<tr>
<td>ZCH_DI_PROC_BT_SIZE</td>
<td>Duplicate Identification Process Batch Size</td>
<td>The transaction batch size for the duplicate identification process. It’s used to group records in the batch and process</td>
<td>100</td>
</tr>
</tbody>
</table>
### Define Survivorship

#### Manage Survivorship Rules

**Survivorship Rules: Explained**

Survivorship rules are a collection of business rules that determine the master or surviving record and its attributes during the merge operation.

Survivorship rules create the best version of a record from multiple source systems, based on business rules. You can configure survivorship rules to resolve conflicts while merging duplicate records.

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**Note:** Data stewards must review sales accounts merges initiated from the Customer Center, Enter Merge Request setup task, Automerge web service, or the Duplicate Resolution Request service. Data stewards can review merge requests only if the User Merge Requests profile option is set to Process Subject to Approval, else the merge requests will error.
Understanding Survivorship Rules Types
There are two types of survivorship rules. You can configure them based on your business needs. They are as follows:

- **Set master record**: Configure the set master record rule to define the criteria for selecting the master record from a set of potential duplicate records.
- **Set attribute value**: Configure the set attribute value rule to define the criteria for selecting the best attribute values from multiple input records.

Understanding the Predefined Survivorship Rules
Six predefined set attribute value rules are provided ready-to-use with the application:

- **Least Recently Updated Organization Attribute (History Wins)**: This rule selects the organization attributes that have the oldest updated date.
- **Most Recently Updated Organization Attribute (Recent Wins)**: This rule selects the organization attributes that have the most recent updated date.
- **Highest Source Confidence Level Wins for Organization**: This rule selects the organization attribute values that have the highest source confidence.
- **Least Recently Updated Person Attribute (History Wins)**: This rule selects the person attributes that have the oldest updated date.
- **Most Recently Updated Person Attribute (Recent Wins)**: This rule selects the person attributes that have the most recent updated date.
- **Highest Source Confidence Level Wins for Person**: This rule selects the person attribute values that have the highest source confidence.

In addition, you can use predefined templates to create new Set Attribute Value rules.

To see these predefined attribute rules, click Search button on the Manage Survivorship Rules task. You can use these predefined survivorship rules as a starting point to define the criteria that is best for your business. These rules are updated with every release. You can also create, edit, and delete these rules. However, deleting an existing rule is not recommended. By default, these predefined survivorship rules are in the inactive status and you can activate these rules from the Manage Survivorship Rules task.

Enabling Survivorship Rules
You can enable the survivorship functionality by setting the `ZCH_ENABLE_SURVIVORSHIP` profile option to Yes in the Setup and Maintenance work area, using the following:

- Offering: Customer Data Management
- Functional Area: Customer Hub
- Task: Manage Customer Hub Profile Options

Managing Survivorship Rules
You can create, edit, and delete survivorship rules in the Setup and Maintenance work area by going to the following:

- Offering: Customer Data Management
- Functional Area: Customer Hub
- Task: Manage Survivorship Rules

The rules use source system confidence level and other criteria to determine the attributes of the record that should be retained from a particular source system, and are stored in the survivorship rules dictionary XML file.
Note: The application does not support changing survivorship rules inside the Application Composer sandbox. Therefore, the merge engine does not pick up the changes made to these rules inside the Application Composer sandbox. When you define custom attributes or custom objects in an Application Composer sandbox, you should Publish and Exit the sandbox before changing a survivorship rule in the Manage Survivorship Rules setup task.

Defining Survivorship Rules
This example demonstrates how to create a survivorship rule. Survivorship rules enable intelligent creation of the best version record, especially from multiple source systems, by specifying criteria for selecting the record to be retained during a merge operation.

Create A Survivorship Rule
To create a survivorship rule:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Customer Hub
   - Task: Manage Survivorship Rules
2. On the Manage Survivorship Rules page, click Add from the Actions menu.
3. Enter the sample information provided in the following table on the Create Survivorship Rule page.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule Name</td>
<td>PickPersonMasterRule</td>
</tr>
<tr>
<td>Description</td>
<td>Select the master person record based on original source system of the record.</td>
</tr>
<tr>
<td>Rule Type</td>
<td>Set master record</td>
</tr>
</tbody>
</table>

Note: Note: You can create the following two types of survivorship rules: Set Master Record and Set Attribute Value. You can use predefined templates to create the Set Attribute Value rules.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object Type</td>
<td>Person</td>
</tr>
</tbody>
</table>

Note: You can create a survivorship rule for the following two types of party records: Person and Organization.

4. Click Apply. The Define Survivorship Rules: Select Master Record page appears.

Specify Criteria for Selecting the Master Record
The following are the steps to specify criteria for selecting the master record:

1. Navigate to the Define Survivorship Rules: Select Master Record page.
2. Enter the information provided in the following table as IF/THEN rules condition in the Define Survivorship Rules: Select Master Record page.
Note the following specification in the Define Survivorship Rules: Select Master Record page.

- Click the + icon to add additional patterns to include additional conditions
- Click the Surround with Parenthesis option to add more features to the conditions
- Select the + Simple Test option to add additional clauses

The following figure shows the Define Survivorship Rules: Select Master Record page with the Surround icon highlighted.

3. Click the Advanced Settings button to verify the effective date of the rule that you are going to create.
The following figure shows Advanced Settings icon on the Define Survivorship Rule: Select Master Record page.

4. Select an effective date, as appropriate. The default effective date is Always. You can select an Effective From or Effective To date, or you can select an Effective Date range.

5. Select a priority for the rule, as appropriate.

   The default priority of the Survivorship rules is Medium. These rules get executed in the order of their priority.

6. Ensure that the Rules Active option is selected.
The following figure shows how the survivorship rule looks like when fully defined. The details include the rule name and the IF and THEN conditions for determining the master.

7. Click Save and Close. You can view the newly created rule in the Manage Survivorship Rules page by searching for it.
8. Click Submit.

Tip: To activate the rule you must click Submit. You may have selected the Active mode, but that will not activate a rule unless submitted.

Related Topics
- Implementing Customer Data Management: Define Survivorship
- MOS document: Define Survivorship Rules

Defining Set Master Record Rules
This procedure demonstrates how to create a survivorship rule of the type Set Master Record. You can determine survivorship at the record level using the set master record rule type. Set master rules are used in party merge to set a single record as the master record.
Defining Set Master Record Rules

The input to the survivorship rule is given in the IF clause. In a set master rule, the input is a set of party records. The THEN clause contains the output that determines the master record. In the Set Master Record rule, the output is a result object that contains a specific Party ID. If multiple records with different Party IDs are returned, then it results in a conflict error. To create Set Master rules, you may perform the following steps:

To create Set Master rules, you perform the following steps:

1. Navigate to the Manage Survivorship Rules task.
2. Click Add. The Create Survivorship Rule page appears.
3. Enter the information provided in the following table on the Create Survivorship Rule page.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule Name</td>
<td>PickOrganizationMasterRule</td>
</tr>
<tr>
<td>Description</td>
<td>Select the master organization record based on the specified criteria for setting the master record.</td>
</tr>
<tr>
<td>Rule Type</td>
<td>Set master record</td>
</tr>
<tr>
<td>Object Type</td>
<td>Organization</td>
</tr>
</tbody>
</table>

4. Click Apply. You are taken to the Define Survivorship Rules: Select Master Record page.

In the Define Survivorship Rules: Select Master Record page, you specify criteria for picking the master record. The criteria that you define in this page determine the output of the rule.

The following topics contains three worked examples that show different ways of defining criteria in the Define Survivorship Rules: Select Master Record page to set a master records:

- Set the Record with Oldest Creation Date as Master
- Set the Record with D-U-N-S Number and Smallest Party ID as Master
- Set the Record with D-U-N-S Number and Highest Number of Party Site as Master

Set the Record with the Oldest Creation Date as Master

This rule has a single condition to set a record that has the oldest creation date as the master.

1. Navigate to the Define Survivorship Rules: Select Master Record page.
2. Enter the information provided in the following table as IF/THEN rules condition in the Define Survivorship Rule: Select Master Record page.

<table>
<thead>
<tr>
<th>Rule Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF Condition</td>
<td>IF master is an HZ_PERSON_FactType.PersonPartyVO</td>
</tr>
<tr>
<td></td>
<td>and there is no case where {nonmaster ==</td>
</tr>
<tr>
<td></td>
<td>HZ_PERSON_FactType.PersonPartyVO and master.PartyId isn't</td>
</tr>
<tr>
<td></td>
<td>nonmaster.PartyId and master.creationDate is more than</td>
</tr>
<tr>
<td></td>
<td>nonmaster.CreationDate}</td>
</tr>
<tr>
<td>THEN Condition</td>
<td>THEN Assert new Result (name:&quot;masterId&quot;, value:&quot; master.PartyId)</td>
</tr>
</tbody>
</table>
The following figure displays the Define Survivorship Rules: Select Master Record page with completely filled IF and THEN rules conditions for setting a record that has the oldest creation date as the master.

Set the Record with D-U-N-S Number and Smallest Party ID as Master

This rule identifies and returns the master record based on the following three conditions in the order of priority listed:

1. Pick master that has D-U-N-S Number.
2. If more than one record has D-U-N-S Number, pick one based on the smallest Party ID.
3. If no record has D-U-N-S Number, pick one based on the smallest Party ID.

The following are the use cases for a set master record rule to pick the master based on the D-U-N-S number and the smallest Party ID.

**Use Case 1**

In this case, there are two records with D-U-N-S number. Therefore, the record with the smaller party ID is picked as the master record. The following table contains the sample record information for this use case.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>D-U-N-S Number</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>11</td>
<td>998837472</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 2</td>
<td>12</td>
<td>null</td>
<td>No</td>
</tr>
</tbody>
</table>
The following table lists the IF and THEN rules condition values that you must enter on the Define Survivorship Rules: Select Master Record page for this use case.

<table>
<thead>
<tr>
<th>Rule Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF Condition</td>
<td>Pick D-U-N-S number(IF master is an HZ_PERSON_FactType.OrganizationPartyVO master.DUNsNumberC isn’t null) masterPartyID is the minimum of masterPartyID where {master= HZ_PERSON_FactType.OrganizationPartyVO and master.DUNsNumberC isn’t null}</td>
</tr>
<tr>
<td>THEN Condition</td>
<td>THEN Assert new Result (name:&quot;masterId&quot;, value:&quot; master.PartyId&quot;)</td>
</tr>
</tbody>
</table>
The following figure shows the Define Survivorship Rules: Select Master Record page with IF and THEN rules conditions for picking the record with D-U-N-S number and minimum party ID as master.

![Define Survivorship Rules: Select Master Record](image)

**Use Case 2**

In this case, there is no record with D-U-N-S number. Therefore, the record with smallest party ID is picked as the master record. The following table lists the sample record information for this use case.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>D-U-N-S Number</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>21</td>
<td>null</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 2</td>
<td>22</td>
<td>null</td>
<td>No</td>
</tr>
<tr>
<td>Record 3</td>
<td>23</td>
<td>null</td>
<td>No</td>
</tr>
</tbody>
</table>
The following table lists the IF and THEN rules condition values that you must enter on the Define Survivorship Rules: Select Master Record page for this use case.

<table>
<thead>
<tr>
<th>Rule Condition</th>
<th>Value</th>
</tr>
</thead>
</table>
| **IF Condition** | Pick D-U-N-S number  
{IF master is an HZ_PERSON_FactType.OrganizationPartyVO  
master.DUNsNumberC isn't null}  
and  
masterPartyID is the minimum of masterPartyID  
where  
{master= HZ_PERSON_FactType.OrganizationPartyVO and  
master.DUNsNumberC isn't null} |
| **THEN Condition** | THEN  
Assert new Result (name:"masterId", value:" master.PartyId") |

The following figure displays the Define Survivorship Rules: Select Master Record page with completely filled IF and THEN rules conditions to set the record that has the smallest party ID as the master when no record with D-U-N-S number is found.

In this example, you have created two set master rules for Organization. First rule is for the cases where the input records have at least one record with D-U-N-S number. The second is for the case where no records have D-U-N-S Number.

⚠️ **Note:** You can activate more than one survivorship rule at a time. When you activate multiple rules, make sure that the rules are not conflicting and the conditions in the rule are set according to the priority.
Set the Record with D-U-N-S Number and Highest Number of Party Sites as Master

This rule identifies and returns the master record based on the following three conditions in the order of priority listed:

1. Pick master that has D-U-N-S Number.
2. Pick master that has more party sites.
3. Pick master that has the smallest Party ID.

The following are two use cases for creating a set master rule to select the master record based on D-U-N-S number, number of party sites, and party ID:

**Use Case 1**

In this case, there are three records with D-U-N-S number and two records with highest number of party sites. Among those two records, the one with the lower value for party ID is selected as master. The following table contains the sample record information for this use case.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>Number of Party Sites</th>
<th>D-U-N-S Number</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>11</td>
<td>3</td>
<td>198837472</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 2</td>
<td>12</td>
<td>3</td>
<td>489203901</td>
<td>No</td>
</tr>
<tr>
<td>Record 3</td>
<td>13</td>
<td>2</td>
<td>384792392</td>
<td>No</td>
</tr>
<tr>
<td>Record 4</td>
<td>14</td>
<td>1</td>
<td>null</td>
<td>No</td>
</tr>
</tbody>
</table>

**Use Case 2**

In this case, there are no records with D-U-N-S number. So, among the two records with higher number of party sites, the record with the smaller party ID is picked as the master record. The following table contains the sample record information for this use case.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>Number of Party Sites</th>
<th>D-U-N-S Number</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>21</td>
<td>1</td>
<td>null</td>
<td>No</td>
</tr>
<tr>
<td>Record 2</td>
<td>22</td>
<td>2</td>
<td>null</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 3</td>
<td>23</td>
<td>3</td>
<td>null</td>
<td>No</td>
</tr>
</tbody>
</table>

To create a master record with D-U-N-S number, number of party sites, and party ID, you add one more condition to the previous example where you set a master record with D-U-N-S number. Adding a condition to the previous example makes the rules complicated and cumbersome. Instead, you can create a simple rule for each condition to narrow down the list of potential master records and create another simple rule in the end to pick one record from the remaining potential master records.

**Note:** You can activate more than one survivorship rule at a time. When you activate multiple rules, make sure that the rules are not conflicting and the conditions in the rule are set according to the priority.
The following figure displays the Survivorship Rules: Select Master Record page with the IF and THEN rules condition values for creating a set master rule to set the record that has D-U-N-S Number as master. The priority of the rule is set as highest. The details of the conditions are as follows:

**Priority:** Highest

**IF condition:** If number of non-null DUNS records is the count where (master is a HZ_ORGANIZATION_FactType.OrganizationPartyVO and master.DUNSNumberC isn't null) and number of non-null DUNS records more than 0 and master is a HZ_ORGANIZATION_FactType.OrganizationPartyVO and master.DUNSNumberC is null

**THEN condition:** Then retract master

Now, you set the conditions to set the record with the maximum number of party sites as the master.
The following figure shows the Survivorship Rules: Select Master Record page with the IF and THEN condition values to set the record with the maximum number of party sites as the master from the remaining potential records. The priority of the rule is set as higher. The details of the conditions are as follows.

**Priority: Higher**

**IF condition:** If maximum party site number is the maximum of master.PartySite.size() where {master is a HZ_ORGANIZATION_FactType.OrganizationPartyVO} and master is a HZ_ORGANIZATION_FactType.OrganizationPartyVO and master.PartySite.size() isn't maximum party site number

**THEN condition:** Then retract master

When the records are screened with two previous conditions, you create a third condition to screen all remaining potential records with the smallest party ID.

The following figure shows the Survivorship Rules: Select Master Record page with the IF and THEN condition values for creating a set master rule to set the record with the smallest party ID as the master. The priority of the rule is set as medium. The details of the conditions are as follows.

**Priority: Medium**

**IF condition:** If masterPartyId is the minimum of master.PartyId where {master is a HZ_ORGANIZATION_FactType.OrganizationPartyVO}
THEN condition: **Assert new Result(name: "masterId", value: masterPartyId)**

In this example, the rules are created to narrow down the list of potential master records. When you activate more than one rule at a time you should set the conditions for the rule according to the priority to narrow down the list of potential master records. In this example Eliminate Null D-U-N-S Number rule is executed first to select records with D-U-N-S Number. Select the Most Address rule is executed next to find the master record with most number of party sites among the potential master records having D-U-N-S Number. Finally, Select Minimum Party ID rule is executed at the end to pick the minimum party ID from the remaining party records.

**Defining Set Attribute Value Rules**

This example demonstrates how to create a survivorship rule of the type Set Attribute Value. You can determine survivorship at the attribute level using the set attribute value survivorship rule type. Set attribute value rules are used in party merge to determine which attribute value should come from which record.

The input to the survivorship rule is given in the IF clause. In a set attribute value rule, the inputs are the party records and their source information. The source information contains information about all attributes for each record in the database. If you are creating rules that use the Source information VO, you define it in the Define Source Systems Confidence page of the Manage Source System Confidence task. You must map each attribute to its source system and given a Source Confidence score on a scale of 1 to 100.

The following table lists the attributes in the source information VO to create a set attribute value rule.
Oracle Sales Cloud
Implementing Customer Data Management

Chapter 18
Define Customer Hub Configuration

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RecordId</td>
<td>The record ID of a specific attribute.</td>
</tr>
<tr>
<td>AttributeName</td>
<td>The name of the attribute.</td>
</tr>
<tr>
<td>Source</td>
<td>The source system from where the attribute is updated.</td>
</tr>
<tr>
<td>SourceConfidenceLevel</td>
<td>The source confidence level assigned to the source system.</td>
</tr>
<tr>
<td>SourceUpdateDate</td>
<td>The date when the attribute was last updated.</td>
</tr>
</tbody>
</table>

The THEN clause determines the output object that picks the survivor record. In this case, setAttribute function creates the output object. To create Set Attribute Value rules, you perform the following steps:

1. Navigate to the Manage Survivorship Rules task.
2. Click Add. The Create Survivorship Rule page appears.

💡 Tip: You can select attributes from the available attributes in the Create Survivorship Rule page. It pre-populates the rule template with the selected attributes. It is not mandatory to set attributes from the available attributes.

3. Enter the sample information provided in the following table on the Create Survivorship Rule page.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule Name</td>
<td>PickAttributeValueRule</td>
</tr>
<tr>
<td>Description</td>
<td>Select the survivor value for a specific attribute based on specified survivor selection criteria.</td>
</tr>
<tr>
<td>Object Type</td>
<td>Organization</td>
</tr>
<tr>
<td>Template</td>
<td>Select the Attribute Based template to select the surviving value based on the characteristic of the attributes. For example, you need an Attribute Based template to pick an attribute with the highest or lowest value such as a party number, or salary, or the earliest incorporated year. Select the Source Confidence Based template to select the surviving value based on the confidence in the source information.</td>
</tr>
</tbody>
</table>

4. Select attributes from the available attributes to pre-populate the rules template. In case you want to use the predefined set attribute rules, do not select any attributes.
5. Click Apply. You are taken to the Define Survivorship Rules: Select Attribute Value page.
In the Define Survivorship Rules: Select Attribute Value page, you specify criteria for selecting the survivor attribute value. The criteria that you define in this page determine the feature of the rule. You also have the option of using one of the following three predefined templates:

- Highest Source Confidence Level Wins for Organization (or Person): Use this rule to select the attribute values with the highest source confidence level.
- Most recently updated Organization (or person) attribute: Use this rule to select the attribute values with the most recently updated date.
- Least recently updated Organization (or person) attribute: Use this rule to select the attribute values with the oldest updated date.

The following sections of this topic contain three worked examples that show different ways of manually setting survivor attribute values in the Define Survivorship Rules: Select Attribute Value page. They are as follows:

- Set the Values with the Earliest Update Date as the Surviving Attribute Values
- Set the Value with the Highest Source Confidence Level as the Surviving Attribute Value for D-U-N-S Number
- Set the Values with the Earliest Incorporated Year as the Surviving Attribute Values

Set the Values with the Earliest Update Date as Surviving Attribute Values
This rule has a single condition to set all the surviving attribute values based on the earliest update date. The following is a use case for a set attribute rule to select the values with the earliest update date as surviving attribute values:

**Use Case 1**

**Party Record**

The following table contains information for party records.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>Party Name</th>
<th>D-U-N-S Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>1</td>
<td>Oracle Corp</td>
<td>198837472</td>
</tr>
<tr>
<td>Record 2</td>
<td>2</td>
<td>Oracle USA Corp</td>
<td>489203901</td>
</tr>
<tr>
<td>Record 3</td>
<td>3</td>
<td>Oracle</td>
<td>null</td>
</tr>
</tbody>
</table>

**Source Information**

The following table contains information for source information records.

<table>
<thead>
<tr>
<th>Record ID</th>
<th>Attribute Name</th>
<th>Source</th>
<th>Source Confidence Level</th>
<th>Source Update Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Party Name</td>
<td>FUSION</td>
<td>95</td>
<td>1/5/2016</td>
</tr>
<tr>
<td>2</td>
<td>Party Name</td>
<td>FUSION</td>
<td>95</td>
<td>1/5/2010</td>
</tr>
<tr>
<td>3</td>
<td>Party Name</td>
<td>SIEBEL</td>
<td>90</td>
<td>1/5/2000</td>
</tr>
<tr>
<td>1</td>
<td>D-U-N-S Number</td>
<td>DNB</td>
<td>100</td>
<td>2/5/1990</td>
</tr>
</tbody>
</table>
In this case:

- The D-U-N-S number attribute value from the record with ID 1 is selected as survivor because the source information indicates that it has the earliest source update date.
- The Party Name attribute value from the record with the ID 3 is selected as survivor because the source information indicates that it has the earliest source update date.

Populate the Define Survivorship Rules: Select Attribute Values page with the IF and THEN rules condition values provided in the following table.

<table>
<thead>
<tr>
<th>Rule Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IF Condition</strong></td>
<td>If picked attribute is a AttributeSourceInfoVO and there is no case where (Other Attribute == AttributeSourceInfoVO and there is no case where (Other Attribute is a AttributeSourceInfoVO and Picked Attribute.AttributeName is Other Attribute.AttributeName and PickedAttribute.RecordId isn't Other Attribute.RecordId and Picked Attribute.SourceUpdateDate more than Other Attribute.SourceUpdateDate))</td>
</tr>
<tr>
<td><strong>THEN Condition</strong></td>
<td>THEN call setAttribute (picked attribute.AttributeName, Picked Attribute.RecordId)</td>
</tr>
</tbody>
</table>

The following figure displays the Define Survivorship Rules: Select Attribute Values page with the IF and THEN rules conditions to create the set attribute value rule that selects the values with the earliest source update date as the surviving attribute value. The figure provides the following details.

Name of the rule: History Wins

**IF condition:** If picked attribute is a AttributeSourceInfoVO and there is no case where (Other Attribute is AttributeSourceInfoVO and Picked Attribute.AttributeName is Other Attribute.AttributeName and PickedAttribute.RecordId isn't Other Attribute.RecordId and Picked Attribute.SourceUpdateDate more than Other Attribute.SourceUpdateDate)
THEN condition: Then call setAttribute (Picked Attribute.AttributeName, Picked Attribute.RecordId)

Set the Value with the Highest Source System Confidence Level as the Surviving Attribute Value for D-U-N-S Number

This rule has a single condition to select the D-U-N-S number value with the highest source confidence level as the surviving attribute value for the D-U-N-S number attribute. The following is a use case for a set attribute rule to select the D-U-N-S number value with the highest source confidence level as the surviving attribute value:

Use Case

Party Record

The following table contains information for party records.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>Party Name</th>
<th>D-U-N-S Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>1</td>
<td>Oracle Corp</td>
<td>198837472</td>
</tr>
</tbody>
</table>
In this case, the party record contains three records with the attribute Party Name and two records with D-U-N-S number. These attributes are picked to create the source information. The source information table defined using the attributes from this party record table is as follows:

**Source Information**

The following table contains information for source information records.

<table>
<thead>
<tr>
<th>Record ID</th>
<th>Attribute Name</th>
<th>Source</th>
<th>Source Confidence Level</th>
<th>Source Update Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Party Name</td>
<td>FUSION</td>
<td>95</td>
<td>1/5/2016</td>
</tr>
<tr>
<td>2</td>
<td>Party Name</td>
<td>FUSION</td>
<td>95</td>
<td>1/5/2010</td>
</tr>
<tr>
<td>3</td>
<td>Party Name</td>
<td>SIEBEL</td>
<td>90</td>
<td>1/5/2000</td>
</tr>
<tr>
<td>1</td>
<td>D-U-N-S Number</td>
<td>DNB</td>
<td>100</td>
<td>2/5/1990</td>
</tr>
<tr>
<td>2</td>
<td>D-U-N-S Number</td>
<td>FUSION</td>
<td>95</td>
<td>1/5/2016</td>
</tr>
</tbody>
</table>

In this case, the D-U-N-S attribute value for the record with ID 1 is selected as survivor because the source information indicates that it has the highest source confidence level among all records that have the D-U-N-S Number attribute.

The following figure displays Define Survivorship Rules: Select Attribute Values page with the IF and THEN rules condition values to set the attribute value with the highest source system confidence level as the survivor. The figure provides the following details.

**Name of the rule: Highest Source Confidence Level**

**IF condition:** If picked attribute is a AttributeSourceInfoVO and Picked Attribute.AttributeName is EnquireDUNSNumberC and there is no case where {Other Attribute is a AttributeSourceInfoVO and Picked Attribute.AttributeName is Other Attribute.AttributeName and Picked Attribute.RecordId isn’t Other Attribute.RecordId and Picked Attribute.SourceConfidenceLevel is less than OtherAttribute.SourceConfidenceLevel}
THEN condition: Then call setAttribute (Picked attribute.getAttributeName, Picked Attribute.RecordId)

Set the Values with the Earliest Incorporated Year as the Surviving Attribute Values

This rule has a single condition to select values with the earliest incorporated year as the surviving attribute values. The following is a use case for creating such a set attribute value rule:

**Use Case 1**

**Party Record**

The following table contains information for party records.

<table>
<thead>
<tr>
<th>Record Name</th>
<th>Party ID</th>
<th>Party Name</th>
<th>Incorporated Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>1</td>
<td>Oracle Corp</td>
<td>1980</td>
</tr>
<tr>
<td>Record 2</td>
<td>2</td>
<td>Oracle USA Corp</td>
<td>1990</td>
</tr>
<tr>
<td>Record 3</td>
<td>3</td>
<td>Oracle</td>
<td>2000</td>
</tr>
</tbody>
</table>

In this case, the party record table contains three records with the attributes Party Name, Party ID, and Incorporated Year. The attribute values for the record with the earliest incorporated year are picked as survivor attribute values.
The following figure displays Define Survivorship Rules: Select Attribute Values page with the IF and THEN rules condition values to set the attribute with the earliest incorporated year as the survivor. The figure provides the following details.

Name of the rule: Selecting the Earliest Incorporated Year

IF condition: If for each case where org is a OrganizationDVO and org.IncorpYear isn't null and there is no case where another org is a OrganizationDVO and org.PartyId is not another org.PartyId and another org.IncorpYear isn't null and org.IncorpYear.intvalue() is more than another org.incorpyear.intValue()

THEN condition: Then call setAttribute ("IncorpYear", org.PartyId)

Defining Survivorship Rules for Parties with Custom Objects and Attributes: Explained

This topic describes how to define survivorship rules for merging parties having custom objects and attributes. For example, you can define a survivorship rule of the type Set Master Record to select the party with the maximum number of custom objects or the party with a specific attribute as the master. You can also define a survivorship rule of the type Set Attribute Value to select the smallest value for a specific attribute.
Understanding Custom Objects and Attributes
You can use Oracle Application Composer to configure and extend Sales Cloud applications. The Application composer provides you the ability to extend an Oracle Sales Cloud application’s object model. You can configure Sales Cloud objects by adding new fields (custom fields or custom attributes) to an existing object (standard objects). Or you create entirely new objects (custom objects) and related fields (custom attributes).

Using Custom Objects and Attributes in Survivorship Rules
The following table describes the basic merge operations that can be performed on standard or custom objects.

<table>
<thead>
<tr>
<th>Object</th>
<th>Examples</th>
<th>Can be merged</th>
<th>Can be transferred</th>
<th>Can be removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Top-Level Object</td>
<td>Account/ Organization</td>
<td>Yes</td>
<td></td>
<td>Not applicable for top-level objects</td>
</tr>
<tr>
<td></td>
<td>Contact/Person</td>
<td></td>
<td></td>
<td>Not applicable for top-level objects</td>
</tr>
<tr>
<td>Standard Child Object</td>
<td>Address</td>
<td>Yes (by reviewing in the Data Steward UI)</td>
<td>Yes (by default if not merged or removed)</td>
<td>Yes (by reviewing in the Data Steward UI)</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Child Object</td>
<td>Lead</td>
<td>No</td>
<td>Yes (always)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Opportunity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custom Top-Level Object</td>
<td>Not applicable</td>
<td>No</td>
<td>Not applicable for top-level objects</td>
<td>Not applicable for top-level object</td>
</tr>
<tr>
<td></td>
<td>(implementation specific)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custom Child Object</td>
<td>Not applicable</td>
<td>No</td>
<td>Yes (always)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>(implementation specific)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following table describes whether or not these objects and attributes can be used while defining conditions, clauses, and actions for survivorship rules of the type Set Master Record and Set Attribute Value.

<table>
<thead>
<tr>
<th>Object</th>
<th>Examples</th>
<th>Can be used in Set Master Record rule conditions</th>
<th>Can be used in Set Master Record rule actions</th>
<th>Can be used in Set Attribute Value rule conditions</th>
<th>Can be used in Set Attribute Value rule actions</th>
<th>Can be used for Attribute Override in Data Steward UI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Top-Level Object</td>
<td>Account/ Organization</td>
<td>Yes (standard and custom attributes)</td>
<td>Yes (standard record ID attribute)</td>
<td>Yes (standard and custom attributes)</td>
<td>Yes (standard and custom attributes)</td>
<td>Yes (standard and custom attributes)</td>
</tr>
<tr>
<td></td>
<td>Contact/Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Child Object</td>
<td>Address</td>
<td>Yes (standard and custom attributes)</td>
<td>No, survivorship not supported for child objects</td>
<td>No, survivorship not supported for child objects</td>
<td>No, survivorship not supported for child objects</td>
<td>No, attribute override not supported for child objects</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Child Object</td>
<td>Lead</td>
<td>Yes (standard and custom attributes)</td>
<td>Not applicable if you cannot merge the records</td>
<td>No</td>
<td>Not applicable if you cannot merge the records</td>
<td>Not applicable if you cannot merge the records</td>
</tr>
<tr>
<td></td>
<td>Opportunity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Defining Set Master Record Rules for Parties with Custom Child Objects: Worked Example

This topic explains how to define a survivorship rule of the type Set Master Record to select the party with the maximum number of custom child objects.

This rule identifies and returns the master record based on the following two conditions:

1. Pick master that has the most custom child objects.
2. Pick master that has the highest party ID.

The following table provides the details of a use case for set master record rule to select the party with the maximum number of custom child objects and the highest party ID as the master record.

<table>
<thead>
<tr>
<th>Record Number</th>
<th>Party ID</th>
<th>Number of Custom Child Objects</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>11</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Record 2</td>
<td>12</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 3</td>
<td>13</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>Record 4</td>
<td>14</td>
<td>1</td>
<td>No</td>
</tr>
</tbody>
</table>

In this case, there are two records with the same number of custom child objects. Therefore, the record with the highest party ID is picked up as the master record.

**Note:** The number of child objects of the custom object is shown up as Fact Types. You can also find out the number of child objects using the accessor inside OrganizationDVO or PersonDVO.
The following figure displays Define Survivorship Rules: Select Master Record page with the IF and THEN rules condition values for creating the set master rule to pick up the record with the highest party ID and maximum custom child objects as the master record.

### Defining Set Master Record Rules for Parties with Custom Attributes: Worked Example

This topic explains how to define a survivorship rule of the type Set Master Record to select the party with a specific custom attribute as the master.

This rule identifies and returns the master record based on the following two conditions:

1. Pick master that has a specified custom attribute. In this case the custom attribute is Testfieldone_c.
2. Pick master that has the highest Party ID.

The following table provides the details of a use case for setting master record rule to select the party with a specific custom attribute as the master.

<table>
<thead>
<tr>
<th>Record Number</th>
<th>Party ID</th>
<th>Testfieldone_c</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>11</td>
<td>Test</td>
<td>No</td>
</tr>
<tr>
<td>Record 2</td>
<td>12</td>
<td>Test</td>
<td>Yes</td>
</tr>
</tbody>
</table>
In this case, there are two records with the custom attribute Testfieldone_c. Therefore, the record with highest party ID is picked as the master record.

The following figure displays Define Survivorship Rules: Select Master Record page with the IF and THEN rules condition values to create the set master record rule to pick the record with specified attributes as the master. The details of the conditions are as follows:

**IF condition:** If masterPartyId is the maximum of master.PartyId where (master is a HZ_PERSON_FactType.PersonDVO and master.Testfieldone_c isn't null)

**THEN condition:** Then Assert new Result (name: "masterId", value: masterPartyId)

---

**Defining Set Attribute Value Rules for Custom Attributes: Worked Example**

This topic explains how to define a survivorship rule of the type Set Attribute Value to select the smallest value for a specific attribute. This rule has a single condition where it picks a record that has the smallest value for the specified custom attribute.
The following table contains the details of a use case for a set attribute value rule to select the smallest value for a specific custom attribute as the survivor. In this case the example attribute name is CustomField1_c.

<table>
<thead>
<tr>
<th>Record Number</th>
<th>Party ID</th>
<th>CustomField1_c Attribute Value</th>
<th>Party Name</th>
<th>Survivor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record 1</td>
<td>11</td>
<td>123</td>
<td>Oracle Corp</td>
<td>Yes</td>
</tr>
<tr>
<td>Record 2</td>
<td>12</td>
<td>1456</td>
<td>Oracle USA Corp</td>
<td>No</td>
</tr>
<tr>
<td>Record 3</td>
<td>13</td>
<td>239940</td>
<td>Oracle</td>
<td>No</td>
</tr>
</tbody>
</table>

In this case, there are three records with CustomField1_c custom attribute. The value 123 is picked up as the survivor value for the CustomField1_c custom attribute because it is the smallest value for that attribute.

The following figure displays the Define Survivorship Rules: Select Attribute Value page with the IF and THEN rules condition values to create the set attribute value rule to pick the smallest value for the CustomField1_c custom attribute as the survivor. The details of the conditions are as follows:

**IF condition:** If (for each case where) {org is a OrganizationDVO and org.CustomField1_c isn't null } and there is no case where {another org is a OrganizationDVO and another org.CustomField1_c isn't null and org.PartyId isn't another org.PartyId and org.CustomField1_c.length() more than another org.CustomField1_c.length()}
THEN condition: `Then call setAttribute("CustomField1_c", org.PartyId)`

FAQs for Manage Survivorship Rules

**What's the difference between survivorship rules and merge agreement rules?**
Survivorship rules are a collection of business rules defined for the creation of the best version record intelligently, especially from multiple source systems, by specifying criteria for selecting record and attributes to be retained during merge or link operations.

A merge agreement rule is a collection of patterns and conditions that are defined to determine whether a merge request should be vetoed by the application or not. Merge requests that violate these rules are either rejected or end in error.
How can I check if the survivorship rules that I created work?
You can create two parties and merge them into a single record to check if your survivorship rules are working. You must ensure that your survivorship rules are active before merging the parties.

What are the seeded sample survivorship rules that Oracle Fusion Applications provide by default?
Oracle Fusion Applications offer the following sample survivorship rules:

- For organizations, history wins: The attribute value with earlier source update date wins. This rule is applicable for all organization attributes.
- For persons, recent wins: The attribute value with later source update date wins. This rule is applicable for all person attributes
- For organizations, assign the highest source confidence level to the D-U-N-S number.

The seeded survivorship rules are in inactive status out-of-the-box. These rules are updated with every release. However, once you change these rules, they are not updated.

Source System Confidence

Source System Confidence Levels: Explained

Source system confidence levels indicate the reliability of a particular source system for specific attributes. They are used to determine the master or surviving record among multiple duplicate records from different source systems.

For each source system, you can set source confidence score for attributes in the Person and Organization objects. The scores are used to select attributes for the master record during merge operation. The scores are used to select attributes, based on the survivorship rules, for the master record during merge operation. You assign source confidence levels based on your understanding of the quality of the data stored in the various source systems within your organization.

Source system confidence levels range from 0 to 100, and are set by default to 0. When all source system confidence levels are set to 0, all conflicts are listed for the Master Data Applications Administrator. The Master Data Applications Administrator reviews the list and decides the source system attributes that must be included into the master record.

The confidence scores are valid only during the date range specified. When you update a confidence score, the master records are also updated based on the new confidence score.

Source System Confidence Levels and Survivorship Rules: How They Work Together

You can use source system confidence levels for creating survivorship rules. Survivorship rules are used to retain master records during merge, insert, or update operations.
Source system confidence levels

You can import data from legacy or source systems into Oracle Sales Cloud. The legacy or source systems usually store data associated with the same attributes across systems. Similarly, multiple source systems may have data related to the same account.

Source system confidence levels let you indicate how much you trust the data from a specific source system for an attribute. For example, you may trust the customer address data coming from a financial system more than the same data from a marketing system. Similarly, you may trust the employee name data coming from the Human Relationships system more than the same data coming from the Marketing system. While specifying source system confidence levels, you must ensure that only the most reliable data is selected as the master data.

Survivorship rules

Oracle Sales Cloud uses a central data model updated by authorized users from multiple applications. Often, different applications or source systems update the same data resulting in a data conflict.

Survivorship rules are custom business rules that determine how conflicts should be automatically resolved while merging or updating duplicate records from different source systems or applications. For example, you can create a survivorship rule to select the latest customer address data when there are duplicate records.

Relationship between source system confidence levels and survivorship rules

Source system confidence levels enable you to build your survivorship rules to resolve duplicate data associated with specific attributes. For example, you could create survivorship rules to:

- Select the record from a source system with confidence values of 80 and above as the master record.
- Automatically reject records from source systems with confidence values of 30 and below.

FAQs for Source System Confidence

What are Set Master and Set Attribute rules?

Set Master rules enable you to define the logical business criteria for selecting the master record from a set of potential duplicate records for merge operations.

Set Attribute rules enable you to define the logical business criteria for selecting the best attribute values from multiple input records during merge operation.

Can multiple attributes of an object type have the same source system confidence level?

Yes, you can apply the same source system confidence level to multiple attributes of an object type. You can manage source system confidence levels using the following in the Setup and Maintenance work area: offering: Customer Data Management; functional area: Customer Hub; task: Manage Source System Confidence.

Agreement Rules
Agreement Rules: Explained

An agreement rule is a collection of patterns and conditions that are defined to determine whether a merge request should be vetoed by the application or not. Merge requests that violate these rules are either rejected or end in error.

Agreement rules let you check a merge request for any veto conditions that can prevent a merge from occurring. These rules save resources and time by obviating the need to review merge requests to prevent undesired merge from being processed. Besides, agreement rules prompt you to consider alternative duplicate resolution mechanism such as linking.

Agreement rule can be of the following two types:

- Predefined
- User-defined

Predefined Agreement Rules

These are agreement rules that are predefined in the application. You can only view the predefined agreement rules.

The following table describes the predefined agreement rules shipped out of the box with the application. Merge requests that violate these rules are automatically rejected.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR_APPLICATION_VETO</td>
<td>Prevents a person party with an active party usage of HR_APPLICATION from merging with another party.</td>
</tr>
<tr>
<td>HR_EMPLOYEE_VETO</td>
<td>Prevents a person party with an active party usage of HR_EMPLOYEE from merging with another party.</td>
</tr>
<tr>
<td>HR_CONTINGENT_WORKER_VETO</td>
<td>Prevents a person party with an active party usage of HR_CONTINGENT_WORKER from merging with another party.</td>
</tr>
<tr>
<td>HR_PARTY_SITE_VETO</td>
<td>Prevents a party site with active original system reference from Oracle Fusion HCM system from merging with another party site.</td>
</tr>
<tr>
<td>RESOURCE_PERSON_VETO</td>
<td>Prevents a person party with an active party usage of RESOURCE from merging with another party.</td>
</tr>
<tr>
<td>BANK_VETO</td>
<td>Prevents an organization party with an active party usage of BANK from merging with another party.</td>
</tr>
<tr>
<td>CLEARINGHOUSE_VETO</td>
<td>Prevents an organization party with an active party usage of CLEARINGHOUSE from merging with another party.</td>
</tr>
<tr>
<td>BANK_BRANCH_VETO</td>
<td>Prevents an organization party with an active party usage of BANK_BRANCH from merging with another party.</td>
</tr>
<tr>
<td>BRANCH_CLEARINGHOUSE_VETO</td>
<td>Prevents an organization party with an active party usage of CLEARINGHOUSE_BRANCH from merging with another party.</td>
</tr>
<tr>
<td>LEGAL_EXTLLEGAL_PARTYUSGRULE_VETO</td>
<td>Prevents an organization party with active party usage of LEGAL_ENTITY from merging with another organization party with active party usage of EXTERNAL_LEGAL_ENTITY.</td>
</tr>
</tbody>
</table>
### Name | Description
--- | ---
IC_PARTICIPANT_PERSON_VETO | Prevents a person party with an active party usage of INCENTIVE_COMP_PARTICIPANT from merging with another party.
IC_PARTICIPANT_ORG_VETO | Prevents an organization party with an active party usage of INCENTIVE_COMP_PARTICIPANT from merging with another party.
PARTNER_VETO | Prevents an organization party with an active party usage of PARTNER from merging with another party.
INACTIVE_PARTNER_VETO | Prevents an organization party with an active party usage of INACTIVE_PARTNER from merging with another party.
CUST_CONTACT_DIFFRESOURCE_ORG_VETO | Prevents two partner owned contacts belonging to different resource organizations from being merged.
CUST_CONTACT_INTERNALPARTNER_VETO | Prevents a partner owned contact that does not belong to a resource organization from merging with another partner owned contact that belongs to a resource organization.
CUST_CONTACT_INTERNALPARTNER_ORG_VETO | Prevents a contact owned by an internal user from merging with a contact owned by a partner user.
CARD_ISSUER_VETO | Prevents an organization party with an active party usage of CREDIT_CARD_PROVIDER from merging with another party.
LEGAL_ENTITY_VETO | Prevents an organization party with an active party usage of LEGAL_ENTITY from merging with another party.
ESTABLISHMENT_VETO | Prevents an organization party with an active party usage of ESTABLISHMENT from merging with another party.
HIERARCHY_CYCLE_PREVENTATION_VETO | Prevents merge from happening when the master party record is at a level lower than the nonmaster party record within the same active tree version.
NAMEDACCOUNT_UNNAMEDACCOUNT_VETO | Prevents merge from happening when the master party record is not a named account whereas the nonmaster party record is a named account and these are in active hierarchies.

**User-defined Agreement Rules**

These are additional agreement rules that you can define to determine whether a merge request should be vetoed by the application. You can create, view, update, and delete user-defined agreement rules.

*Note:* The application does not support changing agreement rules inside the Application Composer sandbox. Therefore, the merge engine does not pickup the changes made to these rules inside the Application Composer sandbox.
Agreement Rules Dictionary: Explained

An agreements rules dictionary is a collection of predefined terms and attributes that can be used to define agreement rules. The Oracle Customer Data Hub comes with a single predefined dictionary (HZ_Parties) that contains all the predefined Agreement Rules shipped out of the box with the application. You can also use this dictionary to define custom agreement rules according to your business requirements. Note that you can only view the predefined agreement rules. You cannot edit them. In contrast, you can create, view, update, and delete user-defined agreement rules. Merge requests that violate agreement rules are rejected.

Before using this dictionary to define custom agreement rules, you must review whether the agreement rule terms and term attributes existing in the predefined agreement rules dictionary are sufficient to define custom agreement rules needed to meet your business requirements. If required, refresh terms to import the latest terms, term attributes, and related metadata, for example, fact types such as entities and objects. Refreshing the dictionary helps you pull in all the newly added custom attributes for accounts and contacts.

Defining Agreement Rules

This example demonstrates how to create user-defined agreement rules that you can use to prevent a merge request from being processed.

Agreement rules are collections of patterns and conditions that are defined to determine whether a merge request should be vetoed by the application or not. Perform the following tasks to define agreement rules:

- Review and refresh terms in the predefined agreement rules dictionary shipped out of the box
- Add a new agreement rule


Review and Refresh Terms in the Predefined Agreement Rules Dictionary

The Customer Hub application is shipped with a predefined agreement rules dictionary that contains all the predefined Agreement Rules shipped out of the box with the application. Before using this dictionary to define custom agreement rules, you must review whether the agreement rule terms and term attributes existing in the predefined agreement rules dictionary are sufficient to define custom agreement rules needed to meet your business requirements. If required, refresh terms to import the latest terms, term attributes, and related metadata, for example, fact types such as entities and objects. Refreshing the dictionary helps you pull in all the newly added custom attributes for accounts and contacts. Use the following steps to review and refresh the agreement rules dictionary:

1. In the Setup and Maintenance work area, go to the following:
   - Offering: Customer Data Management
   - Functional Area: Customer Hub
   - Task: Manage Agreement Rules

2. On the Manage Agreement Rules page, review whether the agreement rule terms and term attributes existing in the predefined agreement rules dictionary are sufficient to define custom agreement rules needed to meet your business requirements.

3. Click Refresh Terms to import the latest terms, term attributes, and related metadata.

4. Click OK in response to the confirmation message.
Add a New Agreement Rule

After reviewing and refreshing the Agreement Rules Dictionary using the earlier steps, perform the following steps to create a new custom agreement rule:

1. On the Manage Agreement Rules page, click **Next** to navigate to the Manage Agreement Rules: Define Rules page.
2. Click **Add** from the Actions menu to add a new rule.
3. Enter a rule name.
4. Click **Define Rule**.
5. Enter the reason for creating the agreement rule in the **Justification Reason**.
6. Click **Add** from the Actions menu to create a new pattern.
7. Complete the fields in the new pattern field using the sample information provided in the following table. Use the default values except where indicated. Note that the relation is always AND between patterns and cannot be edited. You must include the Dictionary Terms OrganizationPartyVO and PersonPartyVO, with defined MergeType, into the Define Patterns column. These patterns determines the master and nonmaster records.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Dictionary Term</th>
<th>Term Alias</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>for each case where</td>
<td>PersonPartyVO</td>
<td>Person</td>
<td>AND</td>
</tr>
<tr>
<td>for each case where</td>
<td>OrganizationPartyVO</td>
<td>NonmasterParty</td>
<td>AND</td>
</tr>
<tr>
<td>there is a case where</td>
<td>PartyUsageAssignmentVO</td>
<td>PartyUsageAssignment</td>
<td>AND</td>
</tr>
</tbody>
</table>

8. Navigate to the Conditions table.
9. Click **Add** from the Actions menu to add a new condition and complete the fields using the sample information provided in the following table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Term Attribute</th>
<th>Operator</th>
<th>Value</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person. PartyNumber</td>
<td>is not</td>
<td>1234</td>
<td>AND</td>
</tr>
<tr>
<td>NonmasterParty. MergeType</td>
<td>=</td>
<td>Nonmaster</td>
<td>AND</td>
</tr>
<tr>
<td>UsageAssignment. PartyUsageCode</td>
<td>=</td>
<td>HR_APPLICANT</td>
<td>AND</td>
</tr>
</tbody>
</table>

10. Click **Save** or **Save and Close**.
11. Click **Submit**.

Related Topics

- Agreement Rules: Explained

Merge Requests
Manual Merge: Explained

Manual merge lets you select duplicate records, unlike system merge in which the matching configuration selects duplicates. You can merge only two records using manual merge, unlike system merge in which you can merge multiple records.

You can use one of the following two methods to manually merge two duplicate records:

- **Immediate manual merge:** This lets you merge two records immediately. You can specify one of the two duplicate records as the master record, and also map some attributes of the duplicate records to the master record. The other attributes of the duplicate record are automatically mapped to the master record.
- **Deferred manual merge:** This lets you defer the merge request for a data steward’s review and approval. The data steward can then review the merge request and approve it for merge.

Merging Records Manually: Worked Example

This example demonstrates how you can manually merge two duplicate records. This example illustrates only the generic process for merging records using the Enter Merge Request task. You can also merge two duplicate records from certain other UI pages.

Merging records manually involves the following tasks:

- Identifying duplicate records
- Selecting the master and duplicate records
- Submitting the merge

**Identifying Duplicate Records**

1. Navigate to the Search and Select: Record to Merge page as follows: **Set Up Tasks Enter Merge Request Search and Select: Record to Merge.**
2. To search and select the record to be merged, complete the search criteria using the sample information provided in the following table. Use the default values except where indicated.

<table>
<thead>
<tr>
<th>Name</th>
<th>Registry ID (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>15918</td>
</tr>
</tbody>
</table>

3. Click Search.
4. From the search results, select the first record to be merged.
5. Select **Merge Record** from the **Actions** menu

**Selecting the Master and Duplicate Records**

*Note:* The function privilege Enter Trading Community Merge Request controls whether the **Merge** secondary window appears at all.

1. In the **Merge** secondary window, specify the selected record either as master or duplicate.
2. To select the second (master or duplicate) record to be merged, in the **Party Picker** enter the sample information provided in the following table. Use the default values except where indicated.
3. Click Search.
4. From the search results, select the second record to be merged and click OK.
5. In the Merge secondary window, click Merge.

### Submitting the Merge

1. On the Map Profile Attributes page, specify the attributes from each of the two records, such as name and gender, that should be mapped to the master record. Any child entities, such as addresses, accounts, account addresses, relationships, and contact points, are transferred to the master record.
2. Click Submit. The merge happens immediately if the data governance profile: User merge requests is set to Allow Processing Without Approval. If the profile is set to Process Subject to Approval, the merge is reviewed and processed later by a data steward.

### Automerge: Explained

The automerge functionality merges duplicate records without any approval or intervention from the data steward. Automatic processing of merge requests is critical when processing large volumes of customer data as automerge can expedite the resolution of duplicate records without manual review. Note that during automerge, the child entities of the duplicate records, such as contact points, relationships, classifications, and cross references, become the child entities of the master record.

### Understanding How Records are Selected for Automerge

Records are selected for automerge based on the following criteria:

- **Match threshold**: The match threshold is defined in the Match Configuration and determines if a record is included in a duplicate set.
- **Merge threshold**: The merge threshold is defined by the ZCH_AUTO_MERGE_THRESHOLD profile option and determines if the merge request for a duplicate set is processed automatically or if it must be reviewed manually.

Three possible outcomes for each record with regard to duplicate identification and merging are as follows:

- **Low score below match threshold**: The record is not included in the duplicate set and in the merge request for that duplicate set.
- **Medium score above match threshold and below merge threshold**: The record is included in the duplicate set but merge request for that duplicate set must be reviewed manually.
- **High score above match threshold and above merge threshold**: The record is included in the duplicate set and merge request is processed automatically.

The score for all the records in a duplicate set must be above the merge threshold for automated processing. If one record in the duplicate set is below merge threshold, and the other records are above the merge threshold, the merge request must be reviewed manually.

**Note:** When you merge two or more records with exactly same children information under phone, email, or address the children information is merged and rolled up to the survivor record.
Configuring Automerge

Enabling Automerge involves several implementation steps that must be completed by an implementor using the following tasks from the Customer Data Management offering in the Setup and Maintenance work area:

- **Manage Customer Hub Profile Options**: Use this task from the Customer Hub functional area to perform the following implementation steps:
  - Set Auto Merge Threshold profile option (ZCH_AUTO_MERGE_THRESHOLD) to the required value. This profile option specifies the threshold for auto merge. Merge requests with lower scores need data steward review. An exact match is 100.
  - Review the Record Size Limit of Duplicate Set (ZCH_DI_MERGEREQ_REC_SIZE). This profile option determines the maximum number of records in the duplicate set that can be merged automatically. By default, the maximum number is set to 10 records.
  - Set the Survivorship Enabled profile option (ZCH_ENABLE_SURVIVORSHIP) to Yes. This profile option enables the survivorship rules to select the master record and retain the attributes during a merge operation.

- **Manage Survivorship Rules**: Use this task from the Customer Hub functional area to create Set Master survivorship rules to choose the master record for merge requests created from the duplicate identification batch and set the rule to active.

  If there are no active Set Master rules or if the Set Master rules did not trigger, the merge request must be reviewed manually, even if the ZCH_AUTO_MERGE_THRESHOLD profile option is set, the score for all records is above the threshold value, and the number of records is below the record size limit.

  **Note**: You can use the Set Attribute rules with Set Master rules to determine the Golden Master record. For automerge, Set Master rule is mandatory.

- **Manage Enterprise Data Quality Matching Configurations**: Use this task from the Data Quality Foundation functional area to perform the following implementation steps:
  - Create an active Match Configuration in Manage Enterprise Data Quality Matching Configurations task or use a predefined Match Configuration. Rebuild the keys if necessary.
  - Enable EDQ Real Time and Batch Basic Match Server in Manage Server Configurations task.

Running Automerge

This task involves the following two steps:

1. Create a duplicate identification batch and select Create Merge Request as the Automatic Processing Option.
2. Perform the task Run Request Dispatch Job to disposition the duplicate resolution sets.

The Dispatch Job processes any resolution request in Pending or Submitted status. You can run this job in two modes:

- **On demand**: Run Request Dispatch Job > Submit
- **Per a specific schedule**: Do the following steps to set up a recurring job:
  - Click Advanced on the Run Request Dispatch Job task.
  - Click Schedule tab and select the Using a Schedule radio button.
  - Select the frequency you want and click Submit.

To see the list of dispatch jobs, and their statuses, navigate to Scheduled Processes under Tools.
Troubleshooting Automerge Issues

After you create your Duplicate Identification Batch, drill down into the completed batch to see the results. If duplicate sets have been found, and automerge is enabled, resolution requests are automatically submitted for merge.

If the resolution request was not submitted automatically, you can drill down to the duplicate set and compare the score for each record with the threshold in the ZCH_AUTO_MERGE_THRESHOLD profile option and the number of records with the limit in the ZCH_DI_MERGEREQ_REC_SIZE profile option. If all scores are above the threshold and the number of records is below the limit, verify that the following are true:

- Set Master rules are active and triggered to choose a master for the records in the duplicate set.
- ZCH_ENABLE_SURVIVORSHIP is set to yes.

High Volume Batch Deduplication: Best Practices and Guidelines

Batch deduplication of account or contact records in Oracle Customer Data Management Cloud Service consists of the following two steps:

- Duplicate Identification: This step includes the identification of duplicate records by submitting a Duplicate Identification Batch job.
  
  You can define and submit this job from the Duplicate Identification page.

- Duplicate Resolution: This step includes the resolution of the duplicates, typically by merging each set of duplicate records.
  
  You can resolve the duplicates either automatically by submitting the Duplicate Identification Batch job (called Automerge) or manually by submitting records in bulk from the Duplicate Identification Batch results review page.

For more details on these steps and for configuration of Automerge, see Merge Requests, Implementing Customer Data Management.

Both of these jobs are data-intensive operations that can read or update millions of rows of data in various Oracle Application Cloud tables. This document is intended to provide the guidelines and best practices for planning the data-sets, and applying appropriate configurations to achieve optimal throughput for high volume deduplication in Oracle Customer Data Management Cloud Service. Each customer’s data set is unique. The time required to process a duplicate identification batch varies on the data shape.

Best Practices and Guidelines

Customer Data Management merge is a data-intensive process that scans and updates a large number of tables in Oracle Applications Cloud, to correctly merge two or more Accounts or Contacts.

This section describes how you can use the following profile options to optimize the merge process:

- **Scope of Merge Process** (ORA_ZCH_MERGE_SCOPE): You can use this profile option to define the scope of the merge process.

- **Master Record Selection Method** (ORA_ZCH_SETMASTER): You can use this profile option to specify the method for selecting the master record in a merge request.
• **Create Automerge with Review** (ORA_ZCH_AUTOMERGE_REVIEW): You can use the profile option to select an appropriate processing option for Automerge.

• **Maximum Number of Concurrent Merge Jobs** (ORA_ZCH_MERGE_MAX_REQUEST_LIMIT): Specify the maximum number of merge jobs to be processed at a time. If you do not set the maximum limit, all merge jobs are submitted for concurrent processing.

You can set these profile options in the Setup and Maintenance work area using the following:

- Offering: Customer Data Management
- Functional Area: Customer Hub
- Task: Manage Customer Hub Profile Options

**Defining the Scope of the Merge Process**

When you merge two or more records, the application scans hundreds of transactional and reference tables across all modules in the Oracle Applications Cloud such as, Core Customer Data Management, CRM, Financials, and Manufacturing. This can make merge a data-intensive and time consuming process. However, you can use the Scope of Merge Process (ORA_ZCH_MERGE_SCOPE) profile option to define and limit the scope of merge process in an implementation so that the application scans only the necessary business areas. This optimizes the size of the merge memory and execution profile.

The following options are supported by the Scope of Merge Process profile option:

- **All Functional Areas (ALL):** This is the default option and scans across all areas of Oracle Applications Cloud. You use this option when there is a global implementation running various modules of Oracle Applications Cloud such as, Core Customer Data Management, CRM, Financials, and Manufacturing.

- **All Customer Relationship Management Related Areas (CRM):** This option limits the scope of the process to handle all the CRM entities such as, Opportunities, and Leads, core Customer Data, Common Entities such as, Notes, and Activities, and Custom Objects. You use this option when there is a CRM implementation along with the use of Customer Data Management functionality.

- **Customer Data Management Specific Areas:** This option limits the scope of the process to core Customer Data, Common Entities such as Notes and Activities, and Custom Objects. You use this option during the initial customer data consolidation and to achieve best performance for Customer Data management, implementations.

**Note:** The profile option settings can be changed at any time, if additional modules are turned on the instance. For instance, the Customer Data Management option might be used during initial consolidation and cleanup of customer data and then changed to CRM or ALL options if other modules are implemented later.

**Defining the Master Record Selection Method**

The performance of the merge process also depends on the method used to select the master record. You can use the Master Record Selection Method (ORA_ZCH_SETMASTER) profile option to specify an appropriate option for selecting the master party automatically during merge. The following options are supported by the Master Record Selection Method profile option:

- **Select master record using survivorship rule (RULE):** This is set as the default master selection option. This option selects the master record based on the Set Master rules defined in the Manage Survivorship task. These rules are applied using the Oracle Business Rules component. You use this option when there are complex business rules required to pick the master.

- **Select the oldest record as master (OLDEST):** This option selects the party with the earliest creation date as the master.
• Select the newest record as master (NEWEST): This option selects the party with the newest creation date as the master.

• Select master based on duplicate identification results (ANY) - This option randomly selects one of the parties in the set as a master.

Configuring Automerge Action

Automerge is the process of automatically merging identified duplicate sets that exceed the automerge threshold. The process is initiated by creating a duplicate identification batch with the Create Merge Request option. You can use the Create Automerge with Review (ORA_ZCH_AUTOMERGE_REVIEW) profile option that has Yes and No values to select an appropriate processing option for Automerge:

• Create merge requests only for duplicate sets exceeding the automerge threshold: To enable this processing option, select No as the value for the Create Automerge with Review (ORA_ZCH_AUTOMERGE_REVIEW) profile option. If you select this option, the application processes duplicate sets as follows:
  o The application preprocesses the duplicate sets exceeding the automerge threshold and merges them into a single job. This option is ideal for processing high volumes of merge requests when the duplicate sets require no review or any further action.
  o Duplicate sets not exceeding the automerge threshold remain in Not Reviewed status in the Duplicate Identification page, from where they can be manually converted to merge requests, or rejected, if needed.

• Create Merge Requests for all duplicate sets: To enable this processing option, select Yes as the value for the Create Automerge with Review (ORA_ZCH_AUTOMERGE_REVIEW) profile option. If you select this option, merge requests are created for all duplicate sets. All requests are first pre-processed. Then they are either merged (if they exceed the automerge threshold), or put in "New" status (so that they can be reviewed) if they don’t exceed automerge threshold.

Controlling the Concurrency of Merge Processes

Each merge request executes as a single batch process in the Enterprise Service Scheduler (ESS). The number of merge requests executing concurrently is limited by the number of batches being concurrently processed. Therefore, if there are other ESS processes competing for threads when there are a large number of merge requests queued up, then the scheduling of those jobs could get delayed.

During initial consolidation of customer data, it’s advantageous to use the maximum available threads. However, in steady state when there are other processes running in the background, it may be necessary to limit and control the number of concurrent merge ESS jobs.

To achieve this, set the following profile option to an appropriate value:

• **Profile Option Name:** Maximum Number of Concurrent Merge Jobs
• **Profile Option Code:** ORA_ZCH_MERGE_MAX_REQUEST_LIMIT
  o When the profile option value is left blank or when no value is defined, the ESS will allocate merge requests according to the threads available. This is recommended during initial high volume data processing.
  o After initial data load, set the profile option value to ten or lower if other processes such as Web services or other ESS jobs are running.
Integrate Customer Data Management with Other Cloud Services

Customer Data Management Cloud Integration Approaches: Explained

You can integrate Customer Data Management Cloud with other cloud services using REST APIs and SOAP APIs to provide address cleansing, duplicate identification, and duplicate resolution capabilities. Alternatively, you can use the Integration Cloud Service to develop workflows to integrate Customer Data Management with other cloud-based or on-premise applications.

Customer Data Management Cloud Integration Using REST APIs

Oracle Customer Data Management (CDM) Cloud provides multiple public REST APIs that can be used to access data stored in the CDM Cloud and construct integrations to other systems. The APIs include resources to Get, Post (create), Patch (update), and Delete organizations (accounts) and persons (contacts). Also, there are resources to identify and create resolution requests for duplicate parties.

For more information on public REST APIs, see REST API for Oracle Sales Cloud in the Related Topics section.

Customer Data Management Cloud Integration Using SOAP APIs

Oracle Customer Data Management (CDM) Cloud provides SOAP services to create and update organizations (accounts) and persons (contacts). You can also use these services to identify and resolve duplicate parties.

For more information on SOAP APIs, see SOAP Web Services for Sales Cloud in the Related Topics section.

Customer Data Management Cloud Integration with Import and Export

Oracle Customer Data Management (CDM) Cloud lets you use File-Based Data Import and Export, Bulk Export, and Data Import to import and export application data using text or XML files. You can also use import to create or update records in Oracle Customer Data Management Cloud.

You can configure the import process to:

- Define deduplication within the data being loaded.
- Define deduplication of the data being loaded against the records that exist in the database.

You can also select a matching configuration to identify duplicates and specify the action to perform on the duplicate records during the import process.

For more information on File-Based Data Import and Export, see Understanding File-Based Data Import and Export in the Related Topics section.
Customer Data Management Cloud Integration Using the Integration Cloud Service

You can use the Integration Cloud Service to leverage predefined integrations between Customer Data Management Cloud, other cloud services, and on premise applications. For example, you can integrate Oracle Sale Cloud and Oracle Service Cloud with Customer Data Management Cloud to provide the duplicate resolution capability. Using this capability, you can merge an Oracle Sales Cloud account (organization) or contact (person) with an Oracle Service Cloud account (organization) or contact (person).

For more information on the Integration Cloud Service, see Oracle Integration Cloud Service in the Related Topics section.

Customer Data Management Integrations for Accounts (Organization) and Contacts (Persons)

The following table shows the possible integrations options for Oracle Customer Data Management Cloud:

<table>
<thead>
<tr>
<th>CDM Process (Batch Job)</th>
<th>SOAP Service</th>
<th>REST Service</th>
<th>Data Import (for account Receivables only)</th>
<th>File-Based Data Import</th>
<th>File-Based Data Import (Simplified View)</th>
<th>File-Based Data Export</th>
<th>ICS Events</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address Cleansing</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes (Batch Summary only). Does not include child object such as duplicate address and relationships.</td>
<td>No</td>
<td>File Export is only available from Customer Data Management work area.</td>
</tr>
<tr>
<td>Duplicate Identification</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes (Batch Summary only). Does not include child object such as duplicate address and relationships.</td>
<td>No</td>
<td>File Export is only available from Customer Data Management work area.</td>
</tr>
<tr>
<td>Duplicate Resolution and Merging</td>
<td>Yes, SOAP service can create new resolution requests and query existing resolution requests but cannot update the existing requests.</td>
<td>Yes, Rest service can create new resolution request and query existing resolution requests but cannot update the existing requests.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes. Does not include child object such as duplicate address and relationships.</td>
<td>Yes. Public Resolution Request Updated.</td>
<td>Bulk Export can be used for duplicate party details in the Duplicate Resolution. See, Implementing CDM in the Related Topics section.</td>
</tr>
</tbody>
</table>
Oracle Customer Data Management (CDM) Cloud acts as the customer master during Integration Cloud Service based integration between different cloud services (also known as spoke systems). You can use CDM Cloud to cleanse, consolidate, and share customer data across integrated cloud services, such as Oracle Sales Cloud and Oracle Service cloud. This topic explains how the duplicate resolution capability of the Customer Data Management Cloud merges records across integrated cloud services, for example, how it merges an Oracle Sales Cloud account or contact with an Oracle Service Cloud account or contact.

**Merge Operation Process for Point to Point Integration**

In this integration scenario, the Customer Data Management Cloud provides the duplicate resolution capability to a single spoke system.
The following diagram shows the before merge status of two contacts, Contact A and Contact B, of an account from Spoke 1.

The following diagram illustrates how the two contacts, A and B, of the account from Spoke 1 are being merged in CDM Cloud and how the Contact A emerges as the survivor and the Contact B becomes the victim.
The following diagram shows the after merge status of two contacts, A and B, of the account. Note that in Spoke 1 only Contact A has survived and remained active after the merge.
Merge Operation Process for Publish and Subscribe Integration

In this integration scenario, the Customer Data Management Cloud provides the duplicate resolution capability to two or more integrated cloud services or spoke systems. Duplicate data from spoke systems is consolidated in the CDM cloud and the mastered data is published to the subscribing spoke systems.
The following diagram shows the before merge status of two contacts, A and B, of an account that exists both in Spoke 1 and Spoke 2.

The following diagram shows the after merge status of two contacts, A and B, of the account.
Take note of the following:

- Data about Contacts A and B comes in the Customer Data Management cloud from both the spoke systems.
- The merge is taking place in the Customer Data Management cloud and any owned objects by the victims are moved (re-parented) to survivor record in CDM.
- The mastered data is published to both the spoke systems and, consequently, Contact B is deleted from both the spoke systems.
Glossary

address style format
Specifies the layout of an address, such as how many address lines it contains, and whether a city name is mandatory.

classification category
A grouping of classification codes, categorizing entities such as parties, tasks, and orders. Allows classification code assignment rules to be defined.

determinant
A value that specifies the use of a reference data set in a particular business context.

external system or external application
A system or application that is external to and not part of Order Management. An order capture system that resides upstream of Order Management is an example of an external system. A fulfillment application that resides downstream of Order Management is an example of an external application.

flexfield segment
An extensible data field that represents an attribute and captures a value corresponding to a predefined, single extension column in the database. A segment appears globally or based on a context of other captured information.

geocode
The latitude and longitude coordinates for a location.

global header
The uppermost region in the user interface that remains the same no matter which page you’re on.

identifier type
An identifier type is a specific category of additional identifiers, numeric or otherwise, which can identify members. Examples of identifier types could be bank account numbers, passport numbers, and so on.

interface table
A database table that stores data during data transfer between applications or from an external system or data file.

Items
Entries within the Product master database. For example, items for a manufacturing company can include nuts, bolts, and screws.
lookup code
An option available within a lookup type, such as the lookup code BLUE within the lookup type COLORS.

lookup type
The label for a static list that has lookup codes as its values.

marketing list
A static selection of contacts for the purpose of communicating a marketing message by email, direct mail or phone.

name style format
Specifies the layout of a name, such as first name, last name, and phonetic last name.

name type
A name type is a specific category of additional names that can identify trading community members. Examples of name types could be maiden names, aliases, doing-business-as names, and so on.

profile option
User preferences and system configuration options that users can configure to control application behavior at different levels of an enterprise.

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.

set enabled
A property that describes entities that an organization shares as reference data. For example, you can indicate a lookup, customer, location, or document attachment as set enabled.