

Validate and Review Address Data using the Geography Name Referencing (GNR) Process and Address Validation Reports

ORACLE WHITE PAPER | APRIL 2018





Disclaimer

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

Confidentiality

The material contained within this Oracle Product Development Center of Excellence document is confidential to Oracle Corporation and the customer in this review. The content may not be shared with other parties without the express consent of Oracle.



Table of Contents

Disclaimer	1
Introduction	1
Using Address Reports: Explained	1
Understanding the Invalid_Address_DS_Rep Report	5
Understanding the MasterGEOHierarchy_rep Report	7
Use Cases	7
Invalid Geography Data in the Address	7
Geography Data Missing in the Address	8
Postal Code Missing in Master Geographies	9

Introduction

This document explains how to validate the Oracle Sales Cloud Address data using Geography Name Referencing (GNR) and review it using the Address Validation Report. Address data can be manually corrected based on the findings in the report, so that the account or contact records can be successfully handled by the GNR process.

Using Address Reports: Explained

To use the address validation reports, you need to perform the following prerequisite steps:

1. Configure geography validation.
 - a. Login to Oracle Applications Cloud as a setup user, such as, Application Implementation Consultant.
 - b. Navigate to the Manage Geographies Setup and Maintenance task as follows: Navigator > Setup and Maintenance > Search > Search for Manage Geographies.
 - c. Enable the Master Geography data for the required country for validation by searching and selecting the country and clicking **Validation Defined**. Note that you can do so only after the Master Geography data for that country is loaded.



Figure 1. Enabling Master Geography Data

- d. In Geography Mapping and Validation region, select the **Geography Validation** checkbox for each Geography Type that you would like to validate.

Manage Geography Validation: United States

Address Style

Actions ▾ View ▾ Format ▾ + Freeze Wrap

Address Style Format

United States Postal Address Format ▾

United States Tax Address Format ▾

No Styles Format

Address Style Format Mapping: United States Postal Address Format

Geography Mapping and Validation

Geography Type	Map to Attribute	Enable List of Values	Tax Validation	Geography Validation
State	State ▾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
County	County ▾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
City	City ▾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Postal Code	Postal code ▾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Geography Validation Control

Geography Validation Level for Country: No validation ▾

Figure 2. Validating Geographies

- e. Click **Save and Close**.

Note: Repeat this step for every country that requires geography validation.

2. Validate the transactional data against master geography by running the Geography Name Referencing (GNR) process. The Geography Name Referencing (GNR) process validates address elements in location tables, such as HZ_LOCATIONS, against the master geography data. To run the GNR process, perform the following steps:
 - a. Navigate to the **Scheduled Processes** work area, and click **Schedule New Process**.

Schedule New Process

Type Job Job Set

Name: Validate Geographies of Addresses Against I ▾

Description: Verifies whether geography elements of an address like state, city, postal code, are valid as per master geography data. Also stores Geography Name Referencing information for the address.

OK Cancel

Figure 3. Scheduling a New Process

- b. Click the **Name** drop-down list and search for **Validate Geographies Against Master Geographies**, and then click **OK**.
 - c. In the Process Details dialog box, enter the following details:
 - Location Table Name: HZ_LOCATIONS
 - Run Type: ALL
 - Usage Code: GEOGRAPHY
 - d. Enter the country code in the **Country Code** field and click **Submit**.
 - e. In the Confirmation dialog box, click **OK**
 - f. Click **Close**.
 - g. In the Scheduled Processes page, click the Refresh icon.
 - h. Verify if the status of the process has completed successfully.
3. Save the Validation Reports.catalog file locally.
 4. Install the Address Validation reports and data models by doing the following:
 - a. Login to Oracle Applications Cloud as a setup user, such as, BI administrator or Application Implementation Consultant.
 - b. Navigate to the **Customer Relationship Management** work area as follows: Navigator > Tools > Reports and Analytics > Browse Catalog > Catalog > Folders > Shared Folders > Custom > Customer Relationship Management.

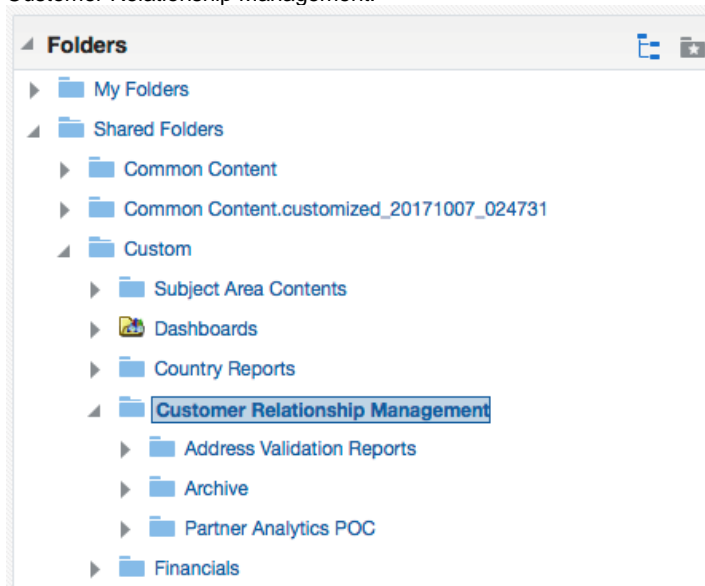


Figure 4. Customer Relationship Management Folder

- c. In the Tasks pane, Click **Unarchive**.

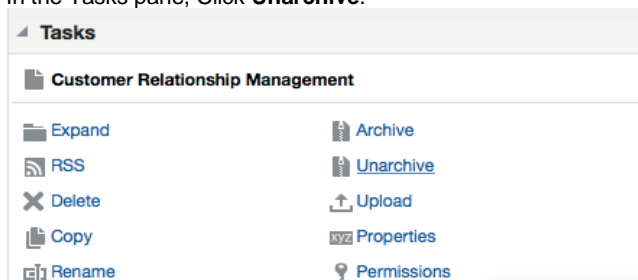


Figure 5. Customer Relationship Management Tasks Pane

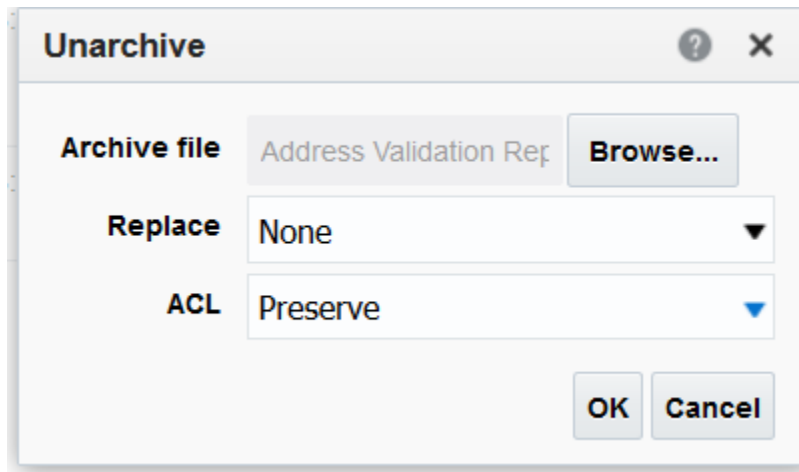


Figure 6. Unarchive Popup

- d. In the **Unarchive** popup, browse to the 'Address Validation Reports.catalog' file you saved locally, change ACL to "Preserve" (Preserves the object's permissions (ACL) as it was in the original catalog) and click **OK**. This will create a folder **Address Validation Reports** containing 4 files :

- **Invalid_Address_DS_DM** - Data model for identifying invalid addresses after validation process. You can modify this data model to add or remove address elements, or edit the mappings in the Invalid Address report.
- **Invalid_Address_DS_Rep** - This report is based on the **Invalid_Address_DS_DM** data model. You can use this report to review the invalid addresses marked by the GNR validation process.
- **MasterGEOHierarchy_DM** - Data model for the master geography hierarchy.
- **MasterGEOHierarchy_rep** - This report identifies the master geography hierarchy for a specific geography type. It displays all levels of the hierarchy where the input value exists.

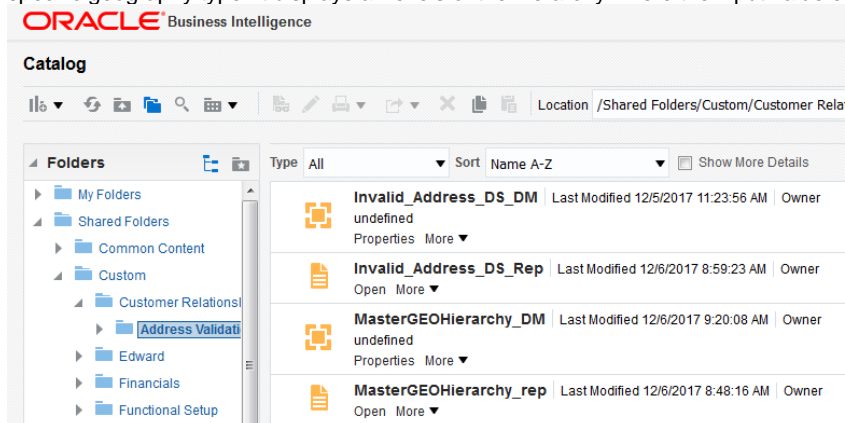


Figure 7. Address Validation Reports Folder

Viewing Permissions in the Business Intelligence Catalog

1. On Catalog page – Expand Folders > Shared Folders > Custom > Customer Relationship Management > Address Validation Reports.

2. Now Invalid_Address_DS_Rep → click More - Permissions. The Permissions dialog box opens. Here you can assign permission to other roles for running this report.
3. Similarly you can view/edit permissions for MasterGEHierarchy_rep → click More-Permissions to view/edit reports permissions.
4. These reports are secured OOTB with “Sales Administrative Transaction Analysis Duty” Application role when you unarchive.

Understanding the Invalid_Address_DS_Rep Report

You can use the Invalid_Address_DS_Rep report to identify the records with addresses that are failing GNR and need to be reviewed and fixed.

The following is an example of an Invalid Address report with the address data of Great Britain.

Open the report, select **GB** as the Country Code and click **Apply**.



The screenshot shows a user interface for filtering a report. On the left, the text 'Country Code' is followed by a dropdown menu containing the value 'GB'. A red rectangular box highlights the 'GB' text in the dropdown. To the right of the dropdown is a button labeled 'Apply'.

At the top of the report are the UI_MAPPINGS, for instance:

Address Line 1 -> ADDRESS1 -> NO_VALIDATION_MAPPING ; Address Line 2 -> ADDRESS2 -> NO_VALIDATION_MAPPING ; City -> CITY -> CITY ; County -> COUNTY -> NO_VALIDATION_MAPPING ; Prefecture Code -> ADDR_ELEMENT_ATTRIBUTE1 -> NO_VALIDATION_MAPPING ; State/Province/Prefecture -> STATE -> REGION ; City Area -> ADDR_ELEMENT_ATTRIBUTE3 -> NO_VALIDATION_MAPPING ; City Code -> ADDR_ELEMENT_ATTRIBUTE2 -> NO_VALIDATION_MAPPING ; Postal Code -> POSTAL_CODE -> POSTAL_CODE ; Country -> COUNTRY -> COUNTRY

In this mapping, City, State, Postal Code, and Country address elements are validated against the master geography data for Great Britain. "NO_VALIDATION_MAPPING", as for Address1 or County, means the address element is not validated.

The columns in the report, their meaning or purpose, and sample data for a record are described in the table below. If a record is included in this report, we know that at least one of these address elements in the record is incorrect and is failing GNR.

INVALID ADDRESS REPORT

Report Column	Meaning/Purpose	Sample Data
PARTY_NUMBER	A unique identifier of the record	877196
SOURCE_SYSTEM_REFERENCE	Original System(s) and It's Reference id (SAP, Siebel, CSV, etc.)	DNB:217241637
PARTY_NAME	Name of Account/Partner	OXFORD INSTRUMENTS PLC
PARTY_USAGE	Account Type (Customer/Partner/Prospect/Inactive Partner etc.)	Buying Customer, External Legal Entity
ADDR_UI_LABELS_TO_REVIEW	Focus your attention on the columns listed here to fix Oracle Sales Cloud (OSC) address.	City
Formatted Address	Formatted address for Account/Partner in Oracle Sales Cloud (OSC)	OLD STATION WAY/WHITNEY/OXFORDSHIRE/OX28 6 /UNITED KINGDOM
Address Line 1 (ADDRESS1)	Address Line 1, entered in OSC	OLD STATION WAY
Address Line 2 (ADDRESS2)	Address Line 2, entered in OSC	
City (CITY)	City, entered in OSC	WHITNEY
City Area (ADDR_ELEMENT_ATTRIBUTE3)	City area, entered in OSC	
Country (COUNTRY)	County, entered in OSC	
State (REGION)	State, entered in OSC	OXFORDSHIRE
Postal Code (POSTAL_CODE)	Postal Code, entered in OSC	OX28 6
Country (COUNTRY)	Country, entered in OSC	GB

Understanding the MasterGEOHierarchy_rep Report

You can use the MasterGEOHierarchy report to find the correct geography data for the records identified in the Invalid_Address_DS_Rep report. To find the correct geography data using the postal code, perform the following steps:

1. Run the MasterGEOHierarchy report.
2. Select **GB** as the Country.
3. In the Geography Value field, input the Postal Code OX28 6 (since you are trying to find the correct City).
4. Click **Apply**.

GEOGRAPHY_NAME	GEOGRAPHY_TYPE	ANCESTOR_PATH
OX28 6	POSTAL_CODE	United Kingdom -> OXFORDSHIRE -> WITNEY -> WITNEY -> OX28 6 -> -> -> ->

Figure 8. Master Geography Hierarchy

As shown in the screenshot, when you search for postal code OX28 6, it matches City = WITNEY (not WHITNEY). So you need to correct the spelling of the city.

Note: You can view or export this report in other format like Excel, HTML, PowerPoint, etc.

Use Cases

Invalid Geography Data in the Address

In the following example, in the Invalid Address Report, we see an issue with City and Postal Code for the party Old Navy, Inc.

PARTY NAME	PARTY USAGE	Address UI Labels to Review	Formatted Address
SEARS ROEBUCK AND CO INC	Buying Customer, External Legal Entity, Supplier	City, Postal Code	3333 Beverly Rd/HOFFMAN ESTATES, IL 60179
Consolidated Supplies	Supplier	City, Postal Code	21004 Norcroft Road/SPRINGFIELD, TX 75853
WAL-MART STORES INC	Buying Customer, External Legal Entity, Supplier	City, Postal Code	702 SW 8th St/mail stop 0050/BENTONVILLE, AR 72712
Cap Financials	Supplier	City, Postal Code	114 Stevens Creek Blvd/SAN JOSE, CA
BORDERS	Supplier	City, Postal Code	100 PHOENIX DRIVE/ANNE ARBOR, MI 48108
OLD NAVIE	Supplier	City, Postal Code	9858 Carousel CENTER/SARACUSE, NY 13290
Old Navy, Inc	Supplier	City, Postal Code	9858 CAROUSEL CTR/SARACUSE, NY 13290
MACYS WEST INC	Supplier	City, Postal Code	300 STANFORD SHOPPING CTR/PALO ALTO, CA 94304

Figure 9 Invalid Address Report – Invalid Geography Data

To find out which geography elements need to be corrected, use the Master Geography Hierarchy report to search for City and Postal Code.

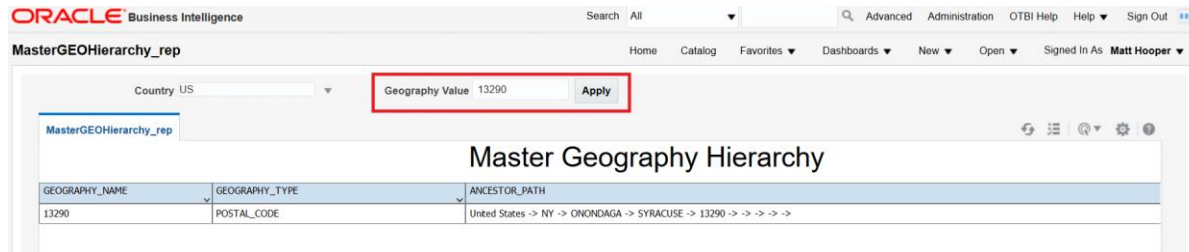


Figure 10 Master Geography Hierarchy Report

After entering the postal code, we see that the name of the city should be “Syracuse” (not “Saracuse”). You need to update the city name in the record and re-run the GNR report.

To update the city name in the Address:

1. Login to Oracle Applications Cloud as a setup user, such as, Sales Administrator.
2. Navigate to Accounts work area as follows: Navigator > Service > Accounts.
 - Note: You can also update a record from the Contacts work area (Navigator > Service > Contacts).**
3. In the Find field, enter the party name and click the find icon.
4. From the search results, select the account you want to edit.
5. On the Edit Account page, click **Profile**.
6. Expand the Address section and update the city name.
7. Click **Save and Close**.

Geography Data Missing in the Address

In the following example, in the Invalid Address Report, we see an issue with City and Postal Code for the party A T & T SOLUTIONS INC.

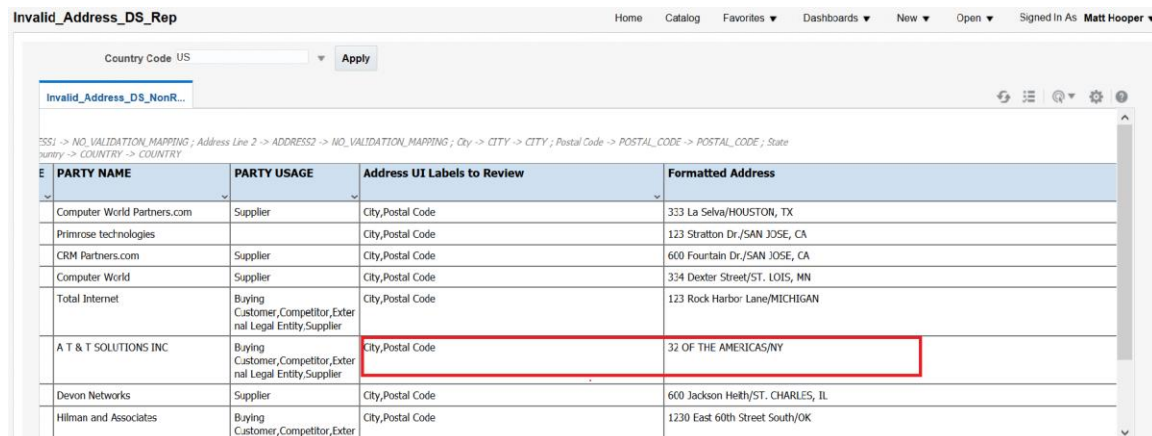


Figure 11 Invalid Address Report - Missing Geography Data

In this case, a quick glance tells you that the party is missing City and Postal Code. You need to update the record with the city name and the correct postal code, and re-run the GNR report.

To update the city name and the postal code in the address:

1. Login to Oracle Applications Cloud as a setup user, such as, Sales Administrator.
2. Navigate to Accounts work area as follows: Navigator > Service > Accounts.

Note: You can also update a record from the Contacts work area (Navigator > Service > Contacts).

3. In the Find field, enter the party name and click the find icon.
4. From the search results, select the account you want to edit.
5. On the Edit Account page, click **Profile**.
6. Expand the Address section and enter the city name and the postal code.
7. Click **Save and Close**.

Postal Code Missing in Master Geographies

If the **Address UI Labels to Review** column has only Postal Code, and the Address has a postal code (ex: OX 28 6), you can search for this postal code in Master Geography Hierarchy Report. If it returns “No data found”, that means this postal code is missing in Master Geography setup data. To validate furthermore, you can navigate to Manage Geographies > Hierarchy Defined > Specify City (ex: WITNEY) name to see all the available Postal Codes in the hierarchy.

Manage Geography Hierarchy: United Kingdom

Save Save and Close Cancel

Saved Search All Geographies

Search

Geography Type Equals Locality

Name Starts with WITNEY

Code Starts with

Search Reset Save...


Geography Hierarchy

Actions View Format

Name	Type	Code	Name Data Provider	Code Type	Code Data Provider
WITNEY	Locality		Nokia		
OX28 1	Postal Code		Nokia		
OX28 2	Postal Code		Nokia		
OX28 3	Postal Code		Nokia		
OX28 4	Postal Code		Nokia		
OX28 5	Postal Code		Nokia		

Figure 12 Geography Hierarchy Report

Note: Geography Hierarchy Report only shows Ancestor path. The descendant hierarchy path is available through the Manage Geography Hierarchy UI as shown in the screenshot.



To add a postal code to the Geography Hierarchy:

1. Login to Oracle Applications Cloud as a setup user, such as, Application Implementation Consultant or Master Data Management Application Administrator.
2. Navigate to Manage Geographies task as follows: Navigator > Setup and Maintenance > Search > Search for Manage Geographies.
3. Enter GB as the country code and click **Search**.
4. In the search results, Click **Hierarchy Defined**.
5. On the Manage Geographies Hierarchy: United Kingdom page:
 - a. Select **Posttown** as the Geography Type.
 - b. Enter WITNEY in the Name field.
 - c. Click **Search**.
6. In the Geography Hierarchy region, select the record WITNEY and click the edit icon.
7. On the Edit Posttown: United Kingdom: OXFORDSHIRE: WITNEY page, under the Primary and Alternative Names region, Click the Add icon.
8. In the new record, in the Name field, enter the postal code name.
9. Click **Save and Close**.




Oracle Corporation, World Headquarters

500 Oracle Parkway
Redwood Shores, CA 94065, USA

Worldwide Inquiries

Phone: +1.650.506.7000
Fax: +1.650.506.7200

CONNECT WITH US

-  blogs.oracle.com/oracle
-  facebook.com/oracle
-  twitter.com/oracle
-  oracle.com

Integrated Cloud Applications & Platform Services

Copyright © 2018, Oracle and/or its affiliates. All rights reserved. This document is provided *for* information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 0418

White Paper Title
April 2018
Author: [OPTIONAL]
Contributing Authors: [OPTIONAL]