B2C Service

Integrating Oracle B2C Service with Oracle Customer Data Management

20D
# Contents

<table>
<thead>
<tr>
<th>Preface</th>
<th>i</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Overview of the Integration</strong></td>
<td>1</td>
</tr>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Use Case 1: Contact Deduplication</td>
<td>2</td>
</tr>
<tr>
<td>Use Case 2: Enrichment</td>
<td>2</td>
</tr>
<tr>
<td>Overview of the Integration Flows</td>
<td>3</td>
</tr>
<tr>
<td><strong>2 Configuring the Integration</strong></td>
<td>5</td>
</tr>
<tr>
<td>Configure the Integration</td>
<td>5</td>
</tr>
<tr>
<td>Create the FUSION_APPS_ICS_APPID User</td>
<td>5</td>
</tr>
<tr>
<td>Request a Credential Store Framework (CSF) Key</td>
<td>5</td>
</tr>
<tr>
<td>Overview of the Configurator</td>
<td>6</td>
</tr>
<tr>
<td>Before You Use the Configurator</td>
<td>7</td>
</tr>
<tr>
<td>Open the Configurator</td>
<td>7</td>
</tr>
<tr>
<td>Layout of the Configurator</td>
<td>8</td>
</tr>
<tr>
<td>Configurator UI Elements</td>
<td>9</td>
</tr>
<tr>
<td>Activate the Integrations</td>
<td>11</td>
</tr>
<tr>
<td>Deactivate the Integrations</td>
<td>12</td>
</tr>
<tr>
<td>Frequently Asked Questions</td>
<td>12</td>
</tr>
<tr>
<td><strong>3 Data Synchronization</strong></td>
<td>15</td>
</tr>
<tr>
<td>Overview of Data Synchronization</td>
<td>15</td>
</tr>
<tr>
<td>Mechanism for the Integration</td>
<td>15</td>
</tr>
<tr>
<td>Organizations Synchronization</td>
<td>16</td>
</tr>
<tr>
<td>Overview of the B2C Service to CDM Direction</td>
<td>16</td>
</tr>
<tr>
<td>Overview of the CDM to B2C Service Direction</td>
<td>16</td>
</tr>
<tr>
<td>Contacts Synchronization</td>
<td>17</td>
</tr>
<tr>
<td>Contact Attribute Mapping</td>
<td>17</td>
</tr>
<tr>
<td>Frequently Asked Questions for Mapping</td>
<td>18</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>4</td>
<td>Deduplication</td>
</tr>
<tr>
<td></td>
<td>Overview of Deduplication</td>
</tr>
<tr>
<td></td>
<td>Contact Deduplication</td>
</tr>
<tr>
<td></td>
<td>Post Deduplication Scenarios</td>
</tr>
<tr>
<td></td>
<td>Frequently Asked Questions about Deduplication</td>
</tr>
<tr>
<td>5</td>
<td>Initial Data Load</td>
</tr>
<tr>
<td></td>
<td>Overview of Initial Load</td>
</tr>
<tr>
<td></td>
<td>Scenario 1: Initial Data Exists Only in CDM</td>
</tr>
<tr>
<td></td>
<td>Scenario 2: Initial Data Exists Only in B2C Service</td>
</tr>
<tr>
<td></td>
<td>Scenario 3: Initial Data Exists in B2C Service and CDM</td>
</tr>
<tr>
<td>6</td>
<td>Appendix A: Custom Report to List Victim Contacts</td>
</tr>
<tr>
<td></td>
<td>Custom Report to List Victim Contacts</td>
</tr>
<tr>
<td>7</td>
<td>Appendix B: Customizing the Flow</td>
</tr>
<tr>
<td></td>
<td>Customize the Flows</td>
</tr>
</tbody>
</table>
Preface

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

Using Oracle Applications

To find guides for Oracle Applications, go to the Oracle Help Center Documentation.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit Oracle's Accessibility Program at Oracle Accessibility Program Website.

Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Contacting Oracle

Access to Oracle Support

Customers can access electronic support through 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. See Oracle B2C Service - Documentation Feedback.
B2C Service
Integrating Oracle B2C Service with Oracle Customer Data Management

20D

Copyright © 1994, 2020, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

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.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software" or "commercial computer software documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government’s use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

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

Intel and Intel Inside 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, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Pre-General Availability: 2020-01-15

If this document is in public or private pre-General Availability status:

This documentation is in pre-General Availability status and is intended for demonstration and preliminary use only. It may not be specific to the hardware on which you are using the software. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to the use of this documentation.

ORACLE CONFIDENTIAL. For authorized use only. Do not distribute to third parties.

If this document is in private pre-General Availability status:

The information contained in this document is for informational sharing purposes only and should be considered in your capacity as a customer advisory board member or pursuant to your pre-General Availability trial agreement only. 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, timing, and pricing of any features or functionality described in this document may change and remain at the sole discretion of Oracle.

This document in any form, software or printed matter, contains proprietary information that is the exclusive property of Oracle. Your access to and use of this confidential material is subject to the terms and conditions of your Oracle Master Agreement, Oracle License and Services Agreement, Oracle PartnerNetwork Agreement, Oracle distribution agreement, or other license agreement which has been executed by you and Oracle and with which you agree to comply. This document and information contained herein may not be disclosed, copied, reproduced, or distributed to anyone outside Oracle without prior written consent of Oracle. This document is not part of your license agreement nor can it be incorporated into any contractual agreement with Oracle or its subsidiaries or affiliates.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Oracle customers have access to electronic support through Oracle Support. For information, visit Get Started with Technical Support or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.
1 Overview of the Integration

Overview

Oracle Customer Data Management (CDM) is a highly configurable, cloud-based application for managing organizations and contacts.

Use it to detect potential duplicate records and standardize and enrich your cleansed data. In a typical business setup, CDM acts as a data repository, storing millions of organization and contact records received from several, disparate applications deployed across an enterprise. Depending on your specific business requirements, the information is acted on by CDM in several different ways:

- **Cleansing:** Mainly through deduplication, where potential duplicates are detected through configurable rules and eventually eliminated or merged with the original record.
- **Enrichment:** By importing information from third-party applications (such as, Dun & Bradstreet) and incorporating them into existing organizations and contacts.
- **Address Validation:** By verifying the accuracy of postal addresses on incoming records and standardizing them (including enrichment steps such as populating the ZIP + 4 code wherever possible).

Interested applications continually access CDM to gather contact and organization information that’s been cleansed, enriched, and validated.

As an Oracle customer you can license CDM as a repository for all customer (organizations and contacts) information that you receive from multiple applications deployed across your enterprise, and leverage its cleansing and enrichment functionality to improve the quality of your received information.

Here’s an example: You have many applications which act as a source of organizations and contacts, and one such application is Oracle B2C Service. To support this business scenario, you would need to build out a native out of the box integration between B2C Service and CDM, to enable organizations and contacts created in B2C Service to be shared, validated, and cleansed by CDM. The out of the box integration includes enhancements to B2C Service which let you consume the cleansed data published by CDM.

Here’s a summary of the functionality you can expect from the integration:

<table>
<thead>
<tr>
<th>Feature</th>
<th>What it does</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seamless and transparent sharing of organizations and contacts information from B2C Service to CDM and from CDM to B2C Service.</td>
<td>A user (an agent or end-customer contact) of B2C Service doesn’t need to do anything different because of the integration. All business processes remain the same, irrespective of whether or not an integration between B2C Service and CDM is active.</td>
</tr>
<tr>
<td>Uptake organizations and contacts information cleansed by and received from CDM.</td>
<td>When duplicate records are merged or when a single record is enriched by CDM, it’s propagated to and consumed by B2C Service.</td>
</tr>
<tr>
<td>Prebuilt integration flows and attribute mappings.</td>
<td>In addition to providing the infrastructure to support the B2C Service and CDM integration, the out of the box solution includes pre-built integrations and attribute mappings, so you get a running start when implementing the integration.</td>
</tr>
</tbody>
</table>
Enable quick set up of the integration with minimal effort | The business administrator uses an UI-based tool (Configurator) to quickly set up the integration. No need for manual steps across multiple applications.

Extend and configure the integration to suit your business requirements | You can extend the out of the box solution to meet your business requirements, without the need for any code changes.

Use Case 1: Contact Deduplication

Here’s a use case where a service agent creates a contact in B2C Service without verifying whether the contact already exists.

1. A customer calls into a call center to report an issue.
2. As part of creating an incident, the agent creates a contact record and associates it with the incident.
3. The contact record is shared with CDM without the agent’s input.
4. The same contact calls the call center again to report a different issue, and this time gives a different email ID.
5. A different service agent creates another record for the same contact and associates it with the current issue (the new incident).
6. The contact record is shared with CDM in the same was as before. CDM, using rules configured by the deploying customer, flags the two contact records as potential duplicate records.
7. A Data Steward views the list of potential duplicates and manually confirms that the two records are indeed duplicates.
8. The Data Steward designates one contact as the master and the other as the duplicate and approves the merge.
9. CDM completes the merge successfully and publishes an event announcing the merge.
10. B2C Service receives the event, and moves the incidents, notes, attachments, tasks and other sub-objects from the victim contact or contacts to the master contact.

**Note:** By default, the duplicate contact or contacts are not deleted from B2C Service. However, you can configure report-based DLM policies to automatically purge duplicates.

Use Case 2: Enrichment

Here’s a use case where addresses data is standardized and enriched.

1. A service agent creates a contact in B2C Service. An associated incident may or may not have been created.
2. The contact record is shared with CDM without the agent’s input.
3. A Data Steward notices that the address on the contact is not in the standard format, and the following is done:
   - The address is put in a standardized format.
   - The address is enriched by adding a ZIP + 4 code.
4. B2C Service periodically pulls recently modified organization and contact information. So, the updated contact record is included in the batch of data extracted from CDM and shared with B2C Service.
5. For every contact record extracted from CDM, the corresponding contact is either inserted or updated in B2C Service.
Overview of the Integration Flows

The integration between B2C Service and CDM is not a direct point-to-point integration between the two applications. Instead, both applications communicate with each other through Oracle Integration Cloud (OIC), which acts as a broker.

**CAUTION:** If you have organization or contact data already residing in your instance of B2C Service and you plan to synchronize that data with CDM, you must make sure that there’s no on-going integration with any other application that also synchronizes these organization and contact records. Specifically, if an existing integration with another application is updating the ext_ref attribute on either Organization or Contact, then you should not integrate B2C Service with CDM. Doing so would result in overwrites of ext_ref, compromising the data integrity. The one exception to this is the B2C Service and CX Sales integration. That is, B2C Service can integrate with both CX Sales and CDM simultaneously as they both share the same underlying tables.

Oracle Integration Cloud (OIC) is a cloud-based platform designed to help any two applications communicate with each other. OIC is a cloud platform where you can build and run integrations between a wide range of applications and services in a highly available hosted environment.

This out of the box integration is between B2C Service and CDM. The integration isn’t a direct point-to-point integration between the two applications. Instead, both applications communicate with each other through Oracle Integration Cloud (OIC), which acts as a broker.

The integration is packaged and available as a PAR file. Contact your Oracle account manager to get a copy of the PAR file. The PAR file must be imported and installed, which can be done using the Configurator explained later in this guide.

The PAR file contains several integration flows as listed below:

<table>
<thead>
<tr>
<th>Integration Flow Name</th>
<th>Based on</th>
<th>Invoked when</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSVC_CDM_ORGANIZATION_CREATE</td>
<td>Event</td>
<td>An organization is created in B2C Service.</td>
</tr>
<tr>
<td>OSVC_CDM_ORGANIZATION_UPDATE</td>
<td>Event</td>
<td>An organization is updated in B2C Service.</td>
</tr>
<tr>
<td>OSVC_CDM_ORGANIZATION_DELETE</td>
<td>Event</td>
<td>An organization is deleted in B2C Service.</td>
</tr>
<tr>
<td>OSVC_OEC_ACCOUNT_UPDATE</td>
<td>Event</td>
<td>An organization is updated in B2C Service, but acts on only those that originated in CX Sales. The organization has no role in the CDM integration.</td>
</tr>
<tr>
<td>OSVC_CDM_PERSON_CREATE</td>
<td>Event</td>
<td>A contact is created in B2C Service.</td>
</tr>
<tr>
<td>OSVC_CDM_PERSON_UPDATE</td>
<td>Event</td>
<td>A contact is updated in B2C Service.</td>
</tr>
<tr>
<td>OSVC_CDM_PERSON_DELETE</td>
<td>Event</td>
<td>A contact is deleted in B2C Service.</td>
</tr>
</tbody>
</table>
### Overview of the Integration

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSVC_OEC_CONTACT_UPDATE</td>
<td>Event</td>
<td>A contact is updated in B2C Service, but acts only on those contacts that were created in CX Sales. The contact has no role in the CDM integration.</td>
</tr>
<tr>
<td>OSVC_OEC_SERVICE_REQUEST_CREATE</td>
<td>Event</td>
<td>A Service Incident is created in B2C Service. The incident has no role in the CDM integration.</td>
</tr>
<tr>
<td>OSVC_OEC_SERVICE_REQUEST_UPDATE</td>
<td>Event</td>
<td>A Service Incident is updated in B2C Service. The incident has no role in the CDM integration.</td>
</tr>
<tr>
<td>OSVC_OEC_SERVICE_REQUEST_DELETE</td>
<td>Event</td>
<td>A Service Incident is deleted in B2C Service. The incident has no role in the CDM integration.</td>
</tr>
<tr>
<td>CDM_OSVC_CONTACT_MERGE</td>
<td>Event</td>
<td>Two or more contacts are merged in CDM.</td>
</tr>
<tr>
<td>CDM_OSVC_ORGANIZATION_MERGE</td>
<td>Event</td>
<td>Two or more organizations are merged in CDM.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_ORG_CONTACT_CREATE_UPDATE</td>
<td>Schedule</td>
<td>Runs at a pre-defined frequency to extract all organizations and contacts created or updated since last run. Extracted data is sent to B2C Service.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_ORGANIZATIONS_BATCHED_UPDATE</td>
<td>Not applicable</td>
<td>Does a bulk update of existing organizations in B2C Service.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_ORGANIZATION_SINGLE_UPDATE</td>
<td>Not applicable</td>
<td>Updates a single organization in B2C Service. Invoked when bulk update fails for any reason.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_CONTACTS_BATCHED_CREATE</td>
<td>Not applicable</td>
<td>Creates new contacts in B2C Service in bulk.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_CONTACT_SINGLE_CREATE</td>
<td>Not applicable</td>
<td>Creates a single contact in B2C Service. Invoked when bulk creation fails.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_CONTACTS_BATCHED_UPDATE</td>
<td>Not applicable</td>
<td>Does a bulk update of existing contacts in B2C Service.</td>
</tr>
<tr>
<td>OEC_CDM_OSVC_CONTACT_SINGLE_UPDATE</td>
<td>Not applicable</td>
<td>Updates a single contact in B2C Service. Invoked when bulk update fails for any reason.</td>
</tr>
</tbody>
</table>
2 Configuring the Integration

Configure the Integration

The integration between B2C Service and CDM involves three different applications, B2C Service, CDM and Oracle Integration Cloud (OIC).

So, the initial setup of the integration requires configuring each of the three applications. B2C Service includes a Configurator which you can use to perform nearly all of the setup steps required to get the integration up and running. While the entire end-to-end setup and configuration can be done manually, it's strongly recommended that you use the Configurator for initial set up and subsequent management of the integration as it will be easier, quicker and less prone to errors.

This document assumes that CDM is already set up, configured, and fully functional. The following are also assumed:

- You have already set up CDM with rules to detect potential duplicate organizations and contacts.
- You have created the necessary functional roles with appropriate privileges to merge confirmed duplicates.

Create the FUSION_APPSICS_APPID User

Assuming that CDM is fully configured and functional, verify that a user account with the user name FUSION_APPSICS_APPID exists and that the user account has the necessary privileges and roles to perform merge operations on organizations and contacts.

If the FUSION_APPSICS_APPID user doesn't exist in CDM, create one and configure it to be able to perform merge operations on organizations and contacts. Whether you just created the user or it existed already, you must know the password for the FUSION_APPSICS_APPID user as it will be required when you use the Configurator on B2C Service.

Request a Credential Store Framework (CSF) Key

When two or more organizations or contacts are merged in CDM, an event is published to CDM. To successfully complete the publication, CDM must post the event to OIC. For this purpose, CDM needs to store the credentials for accessing CDM in its Credentials Store Framework (CSF).
Note: You may not need this step if your current CDM instance is already able to successfully connect with OIC and publish events. A user with sufficient privileges must add the following entry in the CSF using these steps:

   Note: This is just a sample URL. The actual URL of your site would be different.

2. On the Manage Credentials page, click on the Manage Security link.

3. In the csf-key field of the pop-up window, enter a concatenation of the values of Identity Domain and Service Instance for the OIC site to which the CDM site must publish events. You can get the value for these two items from the About section of the OIC application as shown in the following screen capture.

   - In the example above, the csf-key is “idcs-89895a51e16b4f918ecffce13f7f54f9demoservicesaoic”. The string is just a sample, and the csf-key for your OIC site would be different.
   - Enter a valid User Name and Password, and register the entry.

If you don’t have sufficient privileges to create or modify a CSF entry, you may need to log a service request with Oracle. Include the Identity Domain and the Service Instance associated with the OIC instance. After you submit the service request, Oracle will contact you to obtain the user name and password to be used for accessing your OIC instance.

Overview of the Configurator

The integration between B2C Service and CDM involves three different applications: B2C Service, CDM, and OIC.
This means, for the initial set up, you will be required to configure all three applications. Use the Configurator that comes with B2C Service to perform almost all of the setup steps required to make the integration operational. While the entire end-to-end setup and configuration can be done manually, it’s recommended that you use the Configurator for stability and to reduce potential errors. Use the Configurator to perform the initial setup of the integration along with its subsequent management.

Before You Use the Configurator

Before you use the Configurator to set up the integration, make sure you have the following required information available:

<table>
<thead>
<tr>
<th>Required information</th>
<th>Comments</th>
</tr>
</thead>
</table>
| URL of the B2C Service (BUI client) | Sample value: https://testcompany.test.com/AgentWeb/  
|                          | Contact your administrator for the exact URL for your site.               |
| Credentials for accessing B2C Service |                                                                       |
| Base URL of the CDM site | The CDM site that you want your B2C Service site to integrate with.       |
| Credentials to access CDM | Verify that CDM has a user account named FUSION_APPS_ICs_APPID along with a password for this user account. |
| URL of the OIC site      | You may have this information in the welcome mail that you received when an account was created for you in OIC. |
| Credentials to access OIC | Refer to the welcome mail or reach out to your Oracle point-of-contact. |
| PAR file                 | Please visit the My Oracle Support site (https://support.oracle.com) and download the required PAR file. |

Open the Configurator

The Configurator is only available through the BUI client of B2C Service. You can’t launch the Configurator if you are still using the .NET Agent Desktop client.

You access the Configuration by clicking the Integrations link on the Navigation menu of the BUI client. If the Integrations link isn’t available in the Navigation Menu, it might be because it’s missing from the Navigation set associated with your account. Do the following to add it to the Navigation set.

1. Launch the .NET Agent Console for your B2C Service site, then log in.
2. Navigate to Customize List, and in the pop up window, enter Integrations.
3. Add Integrations to the Selected Items list, and then click OK.
4. Log off and close the .NET Agent Console.
5. Log back into B2C Service through the BUI Client and the Integrations link will now be available in the Navigation Menu as shown in the following screenshot.

Layout of the Configurator

The Configurator has three functional sections:

- Service
- Customer Data Management
- Oracle Integration Cloud

Information on the page isn’t located in underling tables. Instead, most (but not all) of the fields are bound to a set of site level configuration verbs defined within B2C Service. When the Configurator is displayed, most (but not all) fields are pre-populated with information fetched from the underlying configuration verbs. Similarly, during activation or deactivation, the underlying configuration verbs are over-written with the values entered in the corresponding fields.
Configurator UI Elements

Here’s a screenshot of the Configurator. The salient UI elements are numbered, followed by a brief explanation of each numbered UI element.

1. First is the toolbar and its two buttons.
   - **Activate**. This button is always available. Use it to activate the integrations, or initiate a synchronization of organizations and contacts from CDM to B2C Service (if the option to suppress the synchronization is not selected).
2. Next are four check boxes that determine the behavior of the integration.

- **Deactivate.** This button is always available. Use it to deactivate or disable the integrations, while also preserving the values in most of the configuration verbs.

- **Use CDM to cleanse and enrich organizations and contacts created in Service.** This check box is bound to the config verb CDM_INTEGRATION_ENABLED. Select this check box if you want to use CDM's deduplication, cleansing and enrichment capabilities on organizations contacts created in B2C Service. Here's an overview of the functionality:
  - Synchronize organizations and contacts created in B2C Service with CX Sales.
  - Updates performed on those organizations and contacts in B2C Service are synchronized with CX Sales.
  - Organizations and contacts created and updated in B2C Service can be synchronized with CX Sales.

  **Note:** This check box has no effect either way on synching of incidents from B2C Service to CX Sales.

- **Do not copy organizations and contacts created in other systems into Service.** When you opt for integration between B2C Service and CDM, organizations and contacts are synchronized bi-directionally. In other words, there is a free exchange of data between B2C Service and CDM, and the other way around.

  Depending on your business processes, you may choose to prevent organizations and contacts that are created in other systems from being added to your B2C Service implementation. This check box helps you to do this.

  Check this check box only if you don’t want organizations and contacts that were created in some other systems to be copied into B2C Service. By default, this check box is unchecked. This means that the default behavior is to copy across organizations and contacts created in other systems into B2C Service if CDM is used to cleanse and enrich customer data.

  If this check box is checked organizations and contacts created in other systems (such as CX Sales, Marketing Cloud and so on) aren’t synchronized from CDM to B2C Service.

  **Note:** This check box takes effect only if the first check box is checked.

- **Synchronize Incidents from Service to CDM.** This check box lets you set up data exchange between B2C Service and CX Sales. The value for this check box isn't fetched from an underlying configuration verb, rather it's dynamically set based on the integration flows that are currently active. Checking this check box ensures the following:
  - Organizations and contacts in CX Sales are synchronized with B2C Service. This may include those organizations and contacts created in other systems.
  - Updates to those organizations and contacts in B2C Service are synchronized back to CX Sales.
  - Incidents created or updated in B2C Service for those organizations are synchronized with CX Sales.
  - Organizations and contacts that were created in B2C Service however, aren't synchronized with CX Sales.
  - Incidents created or updated in B2C Service for those organizations aren't synchronized with CX Sales.

- **Skip bulk synchronization of organizations and contacts from CDM to Service when activating the integration.** This check box only controls Configurator behavior when you activate the integration. Usually, when the Activate button is clicked, a bulk synchronization of organizations and contacts is initiated from CDM to B2C Service.
Select this check box only if you don't want the bulk synchronization to happen during activation.

**Note:** This check box has no effect on the synchronization between B2C Service and CDM post-activation.

3. The B2C Service credentials (user name and password) that are used by OCI while invoking APIs on B2C Service. These two fields are bound to the following configuration verbs, and both of these fields are mandatory when the Activate button is pressed:
   - EVENT_NOTIFICATION_MAPI_USERNAME
   - EVENT_NOTIFICATION_MAPI_PASSWD
   **Note:** The user name that is specified must be a fictitious user name and not used by any of the agents. That is, none of the agents must have the user name that is the user name you specify in this field.

4. The base URL of the CDM site that the B2C Service site will integrate with. The field is bound to the configuration verb FUSION_APPLICATION_URL. Note that this is just the base URL only and not a REST or SOAP end-point. A typical base URL resembles “https://abcd.fa.us2.oraclecloud.com”. The **Test Connection** button enables the administrator to test whether the site is reachable. Click this button only after the credentials for accessing the site have been specified. An appropriate error message is issued if the site is unreachable for any reason.

5. The user name portion of the credentials necessary to access CDM. This field must be populated with the user name (FUSION_APPS_ICS_APPID) already defined in CDM. Make sure the user name has already been defined in CDM and has sufficient privileges to at least create, update and delete Organizations and Contacts (Persons).

6. This field must be entered manually and must be the valid password for the valid user you created. As with all password-related fields, the value entered by the user must be echoed as ******. Oracle’s security guidelines mandate that the passwords not be transmitted between applications. Therefore, there will be no automatic sharing of the password between B2C Service and CDM; so, the user must make sure that the same password entered on this page is the same as the actual password specified in CDM. B2C Service can’t and doesn’t perform any validation of this password. Also, note that this password isn’t stored in B2C Service. So, this field will always be blank whenever the page is rendered.

7. The base URL of the OIC site that acts as the broker between B2C Service and CDM. The value entered is stored in the configuration verb INTEGRATION_CLOUD_URL. The administrator uses the Test Connection button to test whether the site is reachable. Click this button only after the credentials for accessing the site have been specified. An appropriate error message is issued if the site is unreachable for any reason.

8. The credentials (user name and password) necessary to access the OIC site. Stored in the configuration verbs listed below. These credentials are utilized when posting data to OIC. Text entered in the password field is echoed as ******.
   - EVENT_NOTIFICATION_SUBSCRIBER_USERNAME
   - EVENT_NOTIFICATION_SUBSCRIBER_PASSWD

9. The local location of the PAR file that contains the integration flows. It’s assumed that you have received a copy of the latest PAR file from your Oracle account manager and saved it locally. The administrator can launch a typical file browse/search dialog and select the file to be uploaded. The path of the file isn’t saved.

### Activate the Integrations

The Configurator’s **Activate** button activates the integration between B2C Service and either CX Sales or CDM or both. The exact nature of the integration that gets activated is dependent on the check boxes that you select.
To activate, all three sites (B2C Service, CDM and OIC) must be provisioned and operational. This is because the activation process invokes several REST end-points on these sites.

The Configurator performs the following actions during activation.

1. All fields related to credentials and URLs are mandatory. Additionally, at least either check box 1 or check box 3 or both must be checked. An error appears if any of the mandatory fields isn’t populated.
2. If you have specified a PAR file to import, and if the OIC site already has an integration package named OSVC_OEC_CDM_INTEGRATIONS_PACKAGE, any customizations that you might have previously implemented may be over-written.
3. All scheduled integration are paused and all integration flows within the package deactivated.
4. The activation process looks for a package named OSVC_OEC_CDM_INTEGRATIONS_PACKAGE in the PAR file that you upload.
5. Invoke REST APIs on OIC to accomplish the following:

Deactivate the Integrations

The Deactivate button is always available to the administrator. When its clicked, it does the following:

1. Stops all scheduled integrations within the package.
2. Deactivates all the flows within the OSVC_OEC_CDM_INTEGRATIONS_PACKAGE package.
3. Sets the CDM_INTEGRATION_ENABLED config verb to FALSE.
4. Re-displays the Configurator.

Frequently Asked Questions

Here are some frequently asked questions about aspects of the integration.

What does the Configurator do?

The integration between Oracle B2C Service and CDM involves setting up and configuring three different applications – Oracle B2C Service, Oracle CDM Cloud and Oracle Integration Cloud. The Configurator automates the setup and configuration of the above three applications.

Do I have to use the Configurator to perform the initial setup and configuration?

No, but it’s highly recommended. The initial setup and configuration can be done manually, though it isn’t recommended as it’s cumbersome and prone to common human errors.

How can I access the Configurator?

You can only open the Configurator through the BUI client by clicking the Integrations link on the Navigation menu.

I don’t see the Integrations link under the Navigation menu in BUI client. Why?

Make sure that you login as a user with administrator privileges. Also, make sure Integrations is part of your Navigation Set. See the section in this guide on adding Integrations to the Navigation Set.

Do I absolutely need to have the Base URL and the credentials of both CDM and OIC sites prior to using the Configurator?
Yes. Without providing the URL and credentials of the CDM and OIC sites, you won’t be able to activate the integration.

**Should the CDM user necessarily be FUSION_APPS_ICS_APPID or can it be anything else?**

The user name of the account used to access CDM can be anything.

**Do I need to add a CSF (Credential Store Framework) entry in CDM?**

This depends on whether or not the CDM instance is already communicating with your OIC instance. If CDM is already successfully publishing events to the OIC instance, then a new CSF entry is probably not required. If this is the first time your CDM instance is attempting to publish an event to OIC, you probably need to create a CSF entry for the publication to succeed.

**Why isn’t adding the CSF entry automated?**

Due to security reasons, there’s no programmatic mechanism to add or modify CSF entries. Therefore, it has to be done manually.

**I’m interested only in using Oracle CDM to cleanse the organizations and contacts created is B2C Service. Which check box should I check?**

It’s sufficient to check the first check box. There’s no need to check the third check box.

**Does activation do anything else apart from activating the integration?**

Yes, the activation process also initiates a data load from CDM to B2C Service. All Organizations and Contacts (Persons) that satisfy certain constraints are extracted from CDM and loaded into B2C Service. This is done programmatically and is initiated every time the B2C Service to CDM integration is activated. If you don’t want to load organizations and contacts into B2C Service during activation, you can accomplish it by checking the fourth check box on the UI.

**Note:**

There’s no automatic initial data load in the B2C Service to CDM direction.

**I’m getting the following error: Invalid Field While processing Contact->ExternalReference(string). What could be the reason?**

This error is typically seen when the user name used by the OIC platform to connect to B2C Service is the same as an existing agent’s user name. Make sure the user name that you specify in the Configurator is a fictitious user name.
3 Data Synchronization

Overview of Data Synchronization

When the integration between Oracle B2C Service and Oracle CDM Cloud is enabled and active, organizations and contacts are shared bi-directionally between the two applications. This means:

- Any organization or contact (referred to as Person) that is created or updated in CDM is replicated in B2C Service. (Note: This assumes that you have not disabled copying of data created in other systems into B2C Service)
- Any organization or contact created or updated in B2C Service is replicated in CDM.

But, by default, only organizations of usage type Customer are synchronized between CDM and B2C Service. So, if Marketing Cloud creates an organization of usage type Prospect, that organization isn’t replicated in B2C Service. The default behavior of the integration is to filter out non-customer organizations. You can, however, modify this behavior to your specific business requirements by updating the integration flows on the OIC platform.

Mechanism for the Integration

The underlying mechanism driving the synchronization is different in the B2C Service to CDM direction compared to the CDM to B2C Service direction.

In the B2C Service to CDM direction, data synchronization is event-driven. Whenever there's a CUD (Create, Update, Delete) event on either the organization or the contact object, details about (including the payload of the object involved) event are shared with OIC. In turn, OIC invokes the appropriate REST end-point on CDM and posts the payload. The event is then replicated on CDM. The entire end-to-end process is performed asynchronously. Due to latency time of the process, data synchronization isn’t instantaneous and it could be a few minutes before it’s completed.

In the CDM to B2C Service direction, data synchronization is schedule-driven. A scheduler in OIC polls CDM every few minutes for changes (inserts and updates) since the previous sync. CDM provides a list of organizations and contacts that have either been created or modified. OIC iterates through the list and creates or updates the appropriate organization or contact in B2C Service. The delay or latency in this direction is typically higher than in the B2C Service to CDM direction. The OIC scheduler is, by default, set to poll CDM every 10 minutes. Your administrator can modify this time value to something other than 10 minutes. In this way, the latency in the CDM to B2C Service direction is unpredictable and mainly depends on the frequency of the scheduler in addition to network traffic, site load and other factors.
Organizations Synchronization

Assuming the integration between B2C Service and CDM is active, whenever a new organization is created in B2C Service through any mechanism (such as, BUI, .NET, SOAP, REST, or bulk import), it's replicated as an organization in CDM.

Similarly, when an organization is created (no matter the source) in CDM, it will be replicated as an organization in B2C Service if it hasn’t been explicitly suppressed. This replication isn’t synchronous. The replication happens asynchronously with a slight delay or latency. The newly-created organization isn’t directly exchanged between B2C Service and CDM. Instead, the data exchange happens through OIC, which acts as a broker between B2C Service and CDM.

OIC doesn’t blindly transmit the data back-and-forth between B2C Service and CDM. It inspects the payload (in other words, the incoming data), transforms it to match the data representation in the target application and posts the transformed data to the target application.

Overview of the B2C Service to CDM Direction

Here’s a high level overview of the synchronization of data from B2C Service to CDM.

1. When an organization is created in B2C Service, it’s shared with CDM, which replicates it as an organization.
2. Any subsequent updates to the organization is also shared with CDM, so that the two records in B2C Service and CDM are always synchronized.
3. When an organization is deleted in B2C Service, that delete operation is communicated to CDM. The organization isn’t however deleted from CDM. This is because the record might have already been propagated to other systems. Instead, CDM end-dates the relationship between the organization and B2C Service.

Overview of the CDM to B2C Service Direction

Here’s a high level overview of the synchronization of data from CDM to B2C Service.

1. An organization created (regardless of its origination) in CDM is propagated to B2C Service, where it’s replicated as an organization.

   **Note:**

   If you don’t want this to happen, you would have to explicitly suppress it while configuring the integration.

2. Subsequent updates to the organization are synched with B2C Service.
3. When the organization is deleted in CDM, it isn’t deleted from B2C Service as it might have contacts, attachments, notes and other data, associated with it.
4. Creates and updates on only organizations of usage type Customer are replicated to B2C Service.
5. Create and update of organizations of any other usage isn’t replicated in B2C Service.
Contacts Synchronization

Contacts are referred to as Persons in CDM.

Any time a new contact is created or an existing contact updated in B2C Service, it's replicated on the associated Person object in CDM. Similarly, when a person is created (regardless of the source) in CDM, it's replicated as a contact in B2C Service. Just as with organizations, this replication isn't synchronous and completely transparent to the process or mechanism that creates or updates the contact. The replication happens asynchronously with a slight delay or latency.

Contact Attribute Mapping

Here's a list of the Contact attribute mapping for the integration.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Length in CDM</th>
<th>Length in B2C Service</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>150</td>
<td>80</td>
<td>Truncated after the 80th byte in the CDM to B2C Service direction.</td>
</tr>
<tr>
<td>Last Name</td>
<td>150</td>
<td>80</td>
<td>Truncated after the 80th byte in the CDM to B2C Service direction.</td>
</tr>
</tbody>
</table>
| Address.street | 240           | 240                  | CDM to B2C Service  
CDM supports 4 lines of 240 characters each. B2C Service supports only 1 line of 240 characters. So, all trailing spaces on each of 4 lines are stripped off and the remaining strings concatenated to each other. If the resulting string is longer than 240, truncation occurs after 240 characters.  
B2C Service to CDM  
The entire address from B2C Service is fitted into one line in CX Sales. |
| Address.City  | 60            | 80                    | B2C Service to CDM  
Truncation is performed if the string is longer than 60 characters. |
### Frequently Asked Questions for Mapping

Here's frequently asked question for mapping.

**Can I modify the attribute mappings between B2C Service and CDM?**

Yes, the out-of-the-box mapping can be modified to suit your business requirements. You can introduce additional attributes into the mapping or remove or modify the pre-defined mappings.
Where do I make the changes to the attribute mappings?

The mapping changes must be made in the appropriate integration flows on the OIC platform.

Can I modify the pre-packaged integration flows also?

Yes, just as with out-of-the-box attribute mappings, you can also make changes to the pre-packaged integration flows. However, prior to making any changes to the integration flows, you may need to deactivate those flows, because an active flow can’t be modified. Remember to reactivate the flows after you make your changes.

Can I define custom attributes associated with organization or contact objects and map them to either standard or flex fields (custom) on CDM?

Yes, after you define custom attributes to the organization or contact objects and deploy them they become visible in OIC. You can then select those attributes for mapping just as you would with standard attributes.

In the CDM to B2C Service direction, are all organizations and contacts in CDM, including those created in other applications, synchronized with B2C Service?

Yes, this is the default behavior. CDM is considered a hub and receives customer information from multiple sources. B2C Service acts as a spoke in that hub and gets all the customers that are defined in the hub. So, in a hypothetical scenario, if applications X and Y contribute 20 million records each to CDM, the eventual stable state has all three applications – X, Y and CDM – with 40 million records each. Note, however, that only organizations of usage type Customer are shared between CDM and B2C Service.

Is it possible to not copy all organizations and contacts from CDM to B2C Service?

Yes, but this is not the default behavior. You must explicitly suppress the copying of organizations and contacts created in other system into B2C Service. You can accomplish this by checking the appropriate check box on the configurator while setting up the integration.

Is it possible to share organizations that are not customers between CDM and B2C Service?

Yes, but you must modify the integration flows that fetch data from CDM and insert and, or update them into B2C Service to do this.

When an organization or contact is deleted in B2C Service, why is the corresponding row in CDM not deleted?

This is by design. Being a hub, CDM might have shared the organization or contact with other spoke applications, which in turn might have other information associated with them. Rather than delete the organization or contact and potentially create orphan pieces of information, we simply end-date in CDM their relationship with B2C Service. This has the same effect as deleting the relationship, but has the added benefit of retaining information for historical purposes.

Is it possible to delete the organization in CDM when the same organization is deleted from B2C Service?

Yes. However, this isn’t a recommended approach for reasons outlined previously. If you must do this, you’d have to modify, in OIC, the relevant integration flow, which in this case, is OSVC_CDM_ORGANIZATION_DELETE flow.

When an organization or contact is deleted in CDM, why is the corresponding entry not also deleted from B2C Service?

There are two reasons – one functional and one technical. The functional reason is that the organization or contact may have other pieces of information associated with it. Deletion in such cases will involve loss of potentially critical information. The technical reason is that the CDM to B2C Service synchronization isn’t event-driven, but schedule-driven instead. As data extraction happens only at pre-defined intervals, information about deleted organizations and contacts would not be available at the time of extraction.
4 Deduplication

Overview of Deduplication

Deduplication is the process by which two or more records are detected to be duplicate of each other, and consequently eliminating all but one. The eliminated records are collectively referred to as victims while the sole record that is retained is referred to as the survivor.

One of the key aspects of the B2C Service and CDM integration is the handling deduplication between the two applications. Specifically, when CDM completes the successful deduplication of a set of records, it.publishes an event. B2C Service subscribes to this event (indirectly through OIC) and is notified of all successful deduplications in CDM. B2C Service then runs a set of processes that move all child sub-objects from a victim record to the survivor record. Typical child sub-objects include Incidents, Attachments, Tasks, Notes, and so on.

The integration between B2C Service and CDM supports both organization and contact deduplication. Thus, B2C Service can move sub-objects that belong to victim organizations or contacts to the survivor organization or contact.

Contact Deduplication

Though this section refers to deduplication of contacts, it’s important to note that the same points also apply to deduplication of organizations. Organization deduplication is not explained in this guide to avoid repetitive content.

Assume that two contact records were created in Oracle B2C Service for the same individual. The salient details of the two contacts are shown in the following table.

<table>
<thead>
<tr>
<th>Attribute (in B2C Service)</th>
<th>Value for Contact #1</th>
<th>Value or Contact #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>John</td>
<td>Jon</td>
</tr>
<tr>
<td>Last Name</td>
<td>Doe</td>
<td>Doo</td>
</tr>
<tr>
<td>Title</td>
<td>Data Analyst</td>
<td>Data Specialist</td>
</tr>
<tr>
<td>Address</td>
<td>123, Any Street, Suite # 789, Anytown, RS 12345-6789 USA</td>
<td>Not specified</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:John@test.com">John@test.com</a></td>
<td><a href="mailto:Jon@test.com">Jon@test.com</a></td>
</tr>
<tr>
<td>Phone (Work)</td>
<td>123456</td>
<td>123456</td>
</tr>
<tr>
<td>Phone (Home)</td>
<td>789012</td>
<td>Not specified</td>
</tr>
<tr>
<td>Organization</td>
<td>ABC Consultants</td>
<td>Not specified</td>
</tr>
<tr>
<td>Incidents</td>
<td>3 incidents [2 open, 1 closed]</td>
<td>2 incidents [0 open, 2 closed]</td>
</tr>
<tr>
<td>Notes</td>
<td>3 entries</td>
<td>1 entry</td>
</tr>
<tr>
<td>Attachments</td>
<td>abc.docx</td>
<td>xyz.pptx</td>
</tr>
</tbody>
</table>
Here’s how Contact #1 is shown in the UI:

<table>
<thead>
<tr>
<th>Attribute (in B2C Service)</th>
<th>Value for Contact #1</th>
<th>Value or Contact #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social IDs (Custom Object #1)</td>
<td>1 entry</td>
<td>0 entries</td>
</tr>
<tr>
<td>Patents (Custom Object #2)</td>
<td>0 entries</td>
<td>2 entries</td>
</tr>
</tbody>
</table>
Here's how Contact #2 is shown in the UI:

![Contact UI](image1)

And here's the incidents owned by Contact #2:

![Incident UI](image2)
These two contacts are then shared with CDM (with a slight latency). The organization associated with the first contact would also have been shared with CDM, along with the relationship between it and the first contact. It's important to remember that not all attributes of the contact are shared with CDM.

**Note:** You can configure or modify which attributes are shared depending on your business requirements. The two contacts in CDM have the following attributes and values:

<table>
<thead>
<tr>
<th>Attribute (in CDM)</th>
<th>Value for Contact #1</th>
<th>Value for Contact #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>John</td>
<td>Jon</td>
</tr>
<tr>
<td>Last Name</td>
<td>Doe</td>
<td>Doo</td>
</tr>
<tr>
<td>Title</td>
<td>Not received from B2C Service</td>
<td>Not received from B2C Service</td>
</tr>
<tr>
<td>Login</td>
<td>Not received from B2C Service</td>
<td>Not received from B2C Service</td>
</tr>
<tr>
<td>Address</td>
<td>123, Any Street, Suite # 789, Anytown, RS 12345-6789 USA</td>
<td>Blank</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:John@test.com">John@test.com</a></td>
<td><a href="mailto:Jon@test.com">Jon@test.com</a></td>
</tr>
<tr>
<td>Phone (Work)</td>
<td>123456</td>
<td>123456</td>
</tr>
<tr>
<td>Phone (Home)</td>
<td>789012</td>
<td>Blank</td>
</tr>
<tr>
<td>Organization</td>
<td>ABC Consultant</td>
<td>Blank</td>
</tr>
</tbody>
</table>

Here's how Contact #1 looks in CDM:

And here's how Contact #2 looks in CDM:
So, the next step is, a data steward detects that there are two duplicate contact records (referred to as Person in CDM). The data steward proceeds to keep one (the survivor) and eliminate the other (the victim). The data steward designates the first contact (Contact #1) as the master and the other as the victim. CDM then performs the deduplication which results in the following:

<table>
<thead>
<tr>
<th>Attribute (in CDM)</th>
<th>Value for Contact #1 (Contact #2 has been eliminated and is no longer visible in the UI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>John</td>
</tr>
<tr>
<td>Last Name</td>
<td>Doe</td>
</tr>
<tr>
<td>Title</td>
<td>Not received from B2C Service</td>
</tr>
<tr>
<td>Login</td>
<td>Not received from B2C Service</td>
</tr>
<tr>
<td>Address</td>
<td>123, Any Street, Suite # 789, Anytown, RS 12345-6789 USA</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:John@test.com">John@test.com</a></td>
</tr>
<tr>
<td>Phone (Work)</td>
<td>123456</td>
</tr>
<tr>
<td>Phone (Home)</td>
<td>789012</td>
</tr>
<tr>
<td>Organization</td>
<td>ABC Consultant</td>
</tr>
</tbody>
</table>

Now, we have Contact #1, the survivor record in CDM after deduplication. Notice that the survivor contact now has two source system records – one from survivor and one from victim:
Post Deduplication Scenarios

As part of consuming the deduplication event sent by CDM, the sub-objects of victim organizations or contacts are moved to the survivor organization or contact.
By default, the victim record isn’t deleted, though, and continues to exist in B2C Service. However, the victim record is directly linked to the survivor record through an attribute (superseded_by_c_id). This gives rise to several unique scenarios which follow.

**Use Case # 1: Survivor contact is updated in B2C Service**

When the survivor contact is updated in B2C Service, the behavior depends on the attribute(s) that are modified. Modifications to attributes synchronized with CDM result in a behavior that is different compared to modifications to non-shared attributes.

When a shared attribute is updated on the survivor contact, the same attribute on the corresponding record in CDM is also updated. As an example, let’s consider the First Name, which is a shared attribute. If the First Name of Contact #1 (the survivor) is updated to a different value (say, Robert), then the First Name attribute on the corresponding CDM record is automatically updated to “Robert”.

When a non-shared attribute on the survivor contact is updated, it isn’t passed on to CDM. As an example, Title is one of the non-shared attributes on a Contact. Thus, for example, if the Title of contact #1 (survivor) is modified to “IT Manager”, the change isn’t propagated and applied to the CDM record.

**Use Case # 2: Victim contact is updated in B2C Service**

When all the sub-objects, such as Incidents, Tasks, Notes, and Attachments of a victim contact are moved to the survivor contact, it marks the end of the deduplication process. As noted previously, the victim contact isn’t deleted and continues to exist in B2C Service. Additionally, by default, the victim contact(s) are hidden from display on several UI pages. You can, however, configure the behavior to suit your business requirements, so that the victim contact(s) are visible to some or all agents. Updates to victim contact(s) are not propagated to CDM.

**Use Case # 3: Master record is updated in CDM**

In the sample business scenario above, B2C Service has both the survivor (contact # 1) and the victim (contact # 2) records. CDM has only the survivor (contact # 1) record; however, it contains the source system references of both the survivor and victim records in B2C Service. When such a contact with multiple source system references is modified in CDM, the updates are applied only to the survivor contact. Thus, in the sample business scenario, updates to the shared attributes on the CDM Master record (contact # 1) will be replicated on only contact # 1 in B2C Service. Updates to non-shared attributes on the CDM Master record will have no impact on contact # 1 and contact # 2 in B2C Service.

As an example, if the First Name (a shared attribute) of the master record is updated to “James” in CDM, then the First Name of only contact # 1 (survivor) is updated to “James”. However, if a non-shared attribute such as Middle Name is updated on the CDM master record, it remains confined to CDM and isn’t propagated to B2C Service.

**Frequently Asked Questions about Deduplication**

Here’s some FAQs about deduplication.

**What are the entities that can be merged by Oracle CDM Cloud?**

CDM can merge two entities – Organizations and Contacts. The two merges can be done independent of each other.

**What happens when contacts are merged in CDM?**

A user (or a process) selects multiple (up to five) contacts, identifies one among them as the master, specifies the attributes to be copied from duplicates to the master and submits the set for merge (also known as deduplication). CDM then acts on the set by copying information from the duplicates to the master (as specified initially), eliminates
the duplicates and retains only the master. CDM repeats the process for each set of contacts. Finally, CDM publishes a notification about the completion of the merge process.

What happens when organizations are merged in CDM?

The process is nearly identical to the contact merge explained above. Note, however, that in the case of organizations, one of the sub-objects is contacts. So, contacts associated with a victim organization will be moved to the master organization.

What is the notification for and who is it aimed at? What does the notification include?

When CDM completes merging organizations or contacts, it publishes a notification about the merge. This notification is meant to inform applications that depend on CDM that some records have been merged, so that those applications may take appropriate action. If the integration between B2C Service and CDM is active, B2C Service also receives the notification. The notification includes a payload containing information about each set of records that was merged. Each set consists of one surviving organization or contact (there can be only one) and one or more eliminated organizations or contacts. Within each set, the surviving organization or contact is referred to as the survivor and the eliminated organizations or contacts are referred to as the victims. Upon receiving the notification from CDM, B2C Service kicks off an internal merge process.

Does B2C Service initiate the internal merge process (for organizations or contacts) immediately after receiving the notification from CDM?

No. There can be a delay of several minutes before the merge process in B2C Service is initiated. The main reason for the delayed start is that the internal merge process runs on a scheduled frequency that is usually 30 minutes but can be longer. The delay could be due to additional reasons such as network traffic, load on the servers etc. Is it possible to configure or adjust the latency or time lag between when the notification is received by B2C Service and the merge process is initiated? Yes, but it must be done by Oracle Cloud operations team.

What does the internal merge process in B2C Service accomplish?

The internal merge process begins to work on each set of organizations or contacts. The victim records are tagged with the ID of the associated survivor record. For each set, it moves incidents, notes, attachments and other sub-objects that are associated with the victim record to be associated with the survivor record. It also moves any custom sub-objects associated with the victim record to the survivor record. The move of sub-objects is performed for each set of duplicate records (organizations or contacts) contained in the payload.

How long does it take for the merge process to complete?

This is completely dependent on the number of sets in the payload, number of records within each set and the number of sub-objects that need to be moved. Note that multiple sets of organizations or contacts can be merged at a time in CDM, so the internal merge process in B2C Service may have to move an extremely large number of sub-objects from victims to survivors.

Are there any limits on the number of sub-objects that the merge process can handle?

No. There’s no limit on the number of incidents, notes, attachments and other sub-objects associated with a victim record that can be moved to the survivor record.

What happens to the survivor and victim records after the merge process is completed in B2C Service?

- Survivor records exist and are visible to users.
- By default, victim records are not automatically deleted. They continue to exist but are hidden from most UI pages. You can, however, use report-based DLM policies to auto-delete duplicates. For example, if your business mandates that you retain duplicates for six months, then define a custom report to fetch duplicates that have not been updated for six months. Next, define a DLM policy that takes the custom report as input. Once enabled, the DLM policy will automatically delete duplicates that have not been updated for six months.
Victim records are hidden from most UI pages and search results. You can modify this behavior and make the victim records visible to some or all agents. Accomplish this by defining custom reports and incorporating them into custom workspaces. When made visible, victim records can be updated, deleted and so on. Even new sub-objects such as incidents can be created and associated with them.

What happens to the survivor and victim contacts after the merge process is completed in CDM? Is it similar to B2C Service?

CDM behaves differently from B2C Service.

- Just as with B2C Service, the survivor record continues to exist in CDM and is visible to users. In this document, the surviving record in CDM is referred to as the master record.
- Unlike B2C Service, victim records are deleted (soft delete) and are no longer visible to the user.

There's usually some delay before the internal merge process is initiated. During this period can the victim record be updated or additional sub-objects (incidents, notes, attachments) be created for it?

Yes. Complete update is permitted on the victim organizations or contacts, including creation of additional sub-objects such as incidents. The newly created sub-objects may get moved to the survivor record along with other (older) sub-objects when the internal merge process eventually executes. However, any sub-object created after the internal merge process has ended would remain with the victim record.

What is a shared attribute and what happens when it's updated in B2C Service?

As part of the integration between the two applications, contacts created in B2C Service are also created in CDM and vice-versa. However, instead of all attributes, only a small sub-set of attributes are mapped and shared between the two applications. These are referred to as shared attributes, such as First Name, Last Name, and so on which are shared out-of-the-box.

When a shared attribute on a survivor contact is updated in B2C Service, the same attribute on the corresponding record (the master contact) in CDM is also updated.

Is the list of shared attributes configurable?

Yes, you can modify the list of shared attributes to suit your business requirements. You must do the modification in OIC (Oracle Integration Cloud). Updates to any shared attribute, as long as it’s mapped correctly in OIC, will be propagated from survivor to the CDM master record and vice-versa.

What is a non-shared attribute and what happens when it's updated on a survivor contact?

A non-shared contact isn’t mapped between B2C Service and CDM, and so, isn’t shared between the two applications. Since the two aren't mapped, updates to shared attributes can’t be replicated on to the CDM master record.
5 Initial Data Load

Overview of Initial Load

When setting up an integration between Oracle B2C Service and Oracle CDM Cloud, it's highly likely that there’s data in one or both applications.

If so, it’s recommended that you synchronize the data between the two applications before you use the integration. In the current context, data refers only to information about customers – organizations and contacts – and not non-customer information.

There are three possible scenarios:

- Data exists only in CDM and must to be synchronized with B2C Service.
- Data exists only in B2C Service and must be synchronized with CDM.
- Data exists in both applications and must be synchronized bi-directionally.

Scenario 1: Initial Data Exists Only in CDM

If data exists in CDM (in other words, if B2C Service has zero organizations and contacts), the initial data synchronization with B2C Service can be done in two different ways:

- Automatically during the activation of the integration
- Manually using export and import

**Automatic Data Synchronization**

**Note:** This is the default behavior, but can be modified by selecting the appropriate option on the Configurator while setting up the integration.

By default, whenever the integration is activated, the data between CDM and B2C Service is synchronized. But this synchronization happens in only one direction, from CDM to B2C Service. So, this option is feasible only when there’s no data in B2C Service to be synchronized with CDM.

The automatic data synchronization (CDM to B2C Service) is initiated by default when the integration is activated (or reactivated) and runs to completion in the background. The entire process is seamless and requires no user intervention. But, for the data synchronization to be successful, you must make sure that the Country and State codes between the two applications are mapped correctly and synchronized. You must use OIC to define the mapping between the two applications before activation because the data synchronization process requires the mapping to properly transform the data.

Depending on the activation process in this scenario to perform the initial data load is perfectly acceptable, it may not be the most efficient if the initial data is too large. As a general guideline, this method is recommended only if you have
less than 20,000 organizations and 50,000 contacts initially in CDM (and zero in B2C Service). For larger data, it's more efficient to perform the initial data synchronization manually through an export-import process.

Manual Data Synchronization

When a large volume (more than 20,000 organizations or 50,000 contacts) of data must be synchronized from CDM to B2C Service, the recommended option is to synchronize manually through a series of exports and imports. Synchronizing data using export and import is faster and more efficient than synchronizing automatically. This is because the export and import processes use bulk operations which are intrinsically more efficient than the one-by-one approach used by the automatic option.

**Note:** If you prefer to do the initial synchronization from CDM to B2C Service manually, remember to suppress the automatic synchronization that occurs by default when the integration is activated.

Broadly, the following are the steps involved in manually synchronizing data from CDM to B2C Service:

- Export from CDM
- Transform the data
- Import transformed data into B2C Service
- Export from B2C Service
- Transform exported data
- Upload into CDM

**Export from CDM**

Organizations should always be exported before you export contacts. Let's assume that you're interested only in the initial synchronization of organizations that have been updated in the current year.

**Note:** This doesn't mean that organizations updated before the current year will never be synchronized. They can be synchronized in the next batch or they will be synched automatically anyway when they get updated next.

Export the data (organizations and contacts) using the Export Management option in CDM.

- Export Management > Create Export Activity.
- From the Object drop down list, select Account.

On the Create Export Activity: Map Fields page, define the set of attributes that you will export. At a minimum, you should include the following among the Account attributes to be exported.

- PartyID
- Organization Name
- Address
You also use this page to specify filters to limit the data to be exported. Note:

**Note:** You must set at least one filter. In this example, we want to limit the exported organizations to only Customer orgs that were updated this year.

The filter will look like this:

Submit the export activity for processing and wait until the export is finished. The organizations that match the filter criteria are exported as a zip file that is accessible after the export job has finished. The zip file includes one or more CSV files containing the actual data.
Chapter 5
Initial Data Load

As an example, here is a single entry from one of the CSV files (each CSV file can contain up to 50000 records):

```
Party ID,Organization Name,Address Line 1,Address Line 2,Address Line 3,Address Line 4,City,State,Postal Code,Country
3000000022738665,Seven Seas Maritime Company,28488 Mission Blvd ,25th Floor,,Fresno,CA,93650,US
```

Transform the Data

The data that was exported from CDM now must be imported into B2C Service. Before doing the import, you may need to transform some of the exported data to make it compatible with the format supported by the import process in B2C Service. Perform the following transformations:

- Concatenate the four lines of street address into a single line.
- Modify the header record accordingly.
- Convert the Country codes to the appropriate numerical IDs (country_id). For example, US is 1.
- Remove any commas in the data if you plan to use it as the delimited. Or, retain the commas but remember to provide a different delimiter during import into B2C Service.

The transformed data will look something like this:

```
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Party ID</td>
<td>Organization Name</td>
<td>Address Line 1</td>
<td>Address Line 2</td>
<td>Address Line 3</td>
<td>Address Line 4</td>
<td>City</td>
</tr>
<tr>
<td></td>
<td>3000000022738665</td>
<td>Seven Seas Maritime Company</td>
<td>28488 Mission Blvd</td>
<td>25th Floor</td>
<td></td>
<td></td>
<td>Fresno,CA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

Import Data into B2C Service

It's recommended that you import transformed data, like the previous example, using the Data Import Wizard.

On the first page of the Data Import Wizard:

- In the Data Import Wizard, select Organization from the Data Record Type drop down list.
- Specify the location of the transformed CSV file containing the organizations exported from CDM.
• Leave the default delimited (comma) or specify a different delimited if your data includes comma.
• Most importantly, make sure that you don’t have the check boxes for CPMs and Workflow Rules checked.
• Because you are loading each row for the first time into B2C Service, they’re not expected to be present. Still, for the Duplicate Records, choose Record Error to log any errors.

On the second page of the wizard, enter the mapping appropriate to your data. A sample mapping for the current example is shown below. Check the Ignore on Update check box as you’re loading the rows for the first time.

On the Address section, make sure that you store the address coming in from CDM in the Billing Address attribute of the organization.
Import the data. After the import has finished, the wizard shows the statistics of the operation. Verify that there are not errors, or addressed any errors that exist. The most likely reason for the errors would be a mismatch between the Country or State or Province codes between the two applications.
Export from B2C Service

When the Organizations from CDM were imported into B2C Service, each organization was assigned a unique identifier. This unique identifier now must be shared with CDM, to enable continued mapping between the CDM organization and the corresponding entry in B2C Service. So, you must first export the same set (that was imported in the previous step) of organizations from B2C Service. The exported data must have the unique identifier (org_id) assigned by B2C Service.

To export the data, define a new report in B2C Service which filters out all organizations except those that were imported in the previous step. The exported attributes must contain, at a minimum, the organization ID and the corresponding PartyID from CDM. The PartyID from CDM is stored in Fusion Party Reference ID attribute. Here’s a sample report containing the data that was uploaded into B2C Service in the previous step.

Export that data into a CSV file using the export button on the ribbon. The contents of the CSV file:
Transform Exported Data

Remove the report title and sub-title as well as the statistics at the end of the above CSV file:

```
"OrgID and PartyID Mappings"
"For orgs that were updated very recently"
"Organization ID","Organization Name","Fusion Party Reference ID"
14665,"Seven Seas Maritime Company",300000022738665
"Record Count: 1"
```

Upload Data into CDM

Now you must upload the transformed CSV file into CDM. The uploaded data will establish a relationship between Organization ID and Party ID, and complete the data synchronization process.

You can upload data into CDM through the import tool. The first step in the import process is to define a mapping for the kind of data that we need to import. The benefit of creating a mapping is that it can be re-used repeatedly for the same format of data.

- Setup and Maintenance > Sales.
- Search for and select Manage File Import Mappings.
- Create a new Import Mapping. Select Account as the object and Text as the file Type.

Now define the column mappings. Since we're only interested in creating a mapping between Organization ID and Party ID, you can ignore the Organization Name in the transformed CSV file:
Chapter 5

Initial Data Load

After creating the import mapping, the next step is to use the mapping to import the data into CDM. Create a new File Import Activity:

- Setup and Maintenance > Sales.
- Search for and select Manage File Import Activities.
- Create a new activity by doing the following:
  - Select Account as the object and the mapping that was previously created.
  - Select the transformed CSV file as input.

On the next page, set the constant as indicated below:
• Activate the activity so that the data can be imported. Wait until the import process completes and then view the organization record in CDM. Click the Source System References link on the left navigation bar and confirm that an entry for B2C Service (Code = RNOW) is seen with a blank To Date. This is confirmation that an active mapping now exists between the organization record in CDM and the corresponding organization record in B2C Service.
Scenario 2: Initial Data Exists Only in B2C Service

If you have initial data (organizations and contacts) in B2C Service and you plan to integrate it with CDM, make sure that there's no ongoing integration with any other application that updates the ext_ref attribute on organization and contact records.

As previously outlined, the activation process synchronizes data, but only in the CDM to B2C Service direction. So, if you have initial customer data in B2C Service that must be loaded into CDM, the activation process would not accomplish this. The only option is to manually export the data from B2C Service and import it into CDM. Upon successful import into CDM, each organization receives a unique PartyID. The data is exported from CDM and reimported into B2C Service to complete the round-trip and both applications would be in sync with each other. The ongoing synchronization can be started.

Broadly, there are several manual steps involved in synchronizing data from B2C Service to CDM:

- Export Data from B2C Service
- Transform the exported data
- Import transformed data into CDM
- Export from CDM
- Transform the exported data
- Upload into B2C Service

**Export Data from B2C Service**

Exporting data (organizations and contacts) from B2C Service involves several steps:

- Define a report
- Execute the report
- Export data displayed by the report

**Define a Report**

The first step in exporting data from B2C Service is to define a report that can exactly display the data that you want to export. For example, rather than synchronizing all organizations and contacts with CDM, you may want to limit the synchronization to:

- Only organizations that have been updated within the last five years.
- Only organizations that have a non-blank billing address.

For the organizations that satisfy this criteria, you may want to export only the following attributes:

- Organization Name
- Billing Address
**Note:** This document lists only the salient steps in creating a new sample report. Your requirements may be different. Refer to the B2C Service users guide for detailed steps on creating a new report in B2C Service.

2. Select Standard Report for the type of report.
3. Drag and drop the following to create the report body:
   - `orgs.Organization ID`
   - `orgs.Organization Name`
   - `org_addrs.Street`
   - `org_addrs.City`
   - `org_addrs.State/Province`
   - `org_addrs.Postal Code`
   - `org_addrs.Country`
4. Next, click the Filters button on the Ribbon Bar.
5. Select Filters Editor from the dropdown menu.
6. Click **Add Filter**, then add the following filters:
   - `org_addrs.oat_id = Billing`
   - `org_addrs.street != No Value`
   - `orgs.updated >= -5 Years`

After adding all of the three filters, the filter dialog will look something like this:

![Filter Dialog](image)

7. Save the report definition and run it.

You may see something similar to the following, depending on your filter and selected attributes:
Transform the Exported Data

The data that was exported from B2C Service will be in a CSV file and appear similar to the following:

```
"Organizations with non-blank Billing Address"
"Updated within the last 5 years"
"Organization ID","Organization Name","Street","City","State/Province","Postal Code","Country"
14638,org2,"billing st","billing cy","MS","567765","United States (US)"
14639,org3,"test street edited from incident","test city","ME","987654","United States (US)"
14644,APAR,91, Swanson Street,"Mi Wuk Village","CA","95346","United States (US)"
14647,ABC 123 Test Inc","123 Any Street","Hayward","CA","94544","United States (US)"
14648,ABC 123 Test Corp,"Rosecliff Apartments , 790 Willard Street","Quincy","MA","02159","United States (US)"
14649,Barrow City Council","123 Lombard St","San Francisco","CA","93500","United States (US)"
14650,"City of Artesia","456 Floral Ave","Artesia","CA","92888","United States (US)"
```

You must convert this report into a pure data file by removing the Title, Sub-Title and Footer rows. It's acceptable to have the heading row, though, as CDM can recognize and ignore header row in a data file. Additionally, the Country and State codes in the file must be modified to match the codes in CDM. The transformed file looks like this:

```
Organization ID,Organization Name,Street,City,State,Postal Code,Country
14638,org2,billing st,billing cy,MS,567765,US
14639,org3,test street edited from incident,test city,ME,987654,US
14644,APAR,91, Swanson Street,Mi Wuk Village,CA,95346,US
14647,ABC 123 Test Inc,123 Any Street,Hayward,CA,94544,US
14648,ABC 123 Test Corp,Rosecliff Apartments , 790 Willard Street,Quincy,MA,02159,US
14649,Barrow City Council,123 Lombard St,San Francisco,CA,93500,US
14650,"City of Artesia",456 Floral Ave,Artesia,CA,92888,US
```

Import the Transformed Data into CDM

The transformed CSV file now needs to be uploaded into CDM. This will create the corresponding organization in CDM and also establish a relationship between Organization ID (from B2C Service) and Party ID (from CDM).

You can upload data into CDM using the import tool. The first step in the import process is to define a mapping for the kind of data that you need to import. The benefit of creating a mapping is that it can be reused repeatedly for the same format of data.

1. Setup and Maintenance > Sales.
2. Search for and select Manage File Import Mappings.
3. Create a new Import Mapping. Select Account as the object and Text as the file Type.
4. Define the column mappings for the above. The mapping should be aligned with the transformed data that contains the organization id, organization name and address. One of the important mappings is that the organization id is mapped to PartyOrigSystemReference:

5. After creating the Import Mapping, the next step is to use it and actually import the data into CDM. Create a new File Import Activity:
   a. Setup and Maintenance > Sales.
   b. Search for and select Manage File Import Activities.
c. Create a new activity. Select Account as the object and the mapping that was created above. Select the transformed CSV file as input:

![Create Import Activity: Enter Import Options]

- **Object**: Account
- **Description**: Import Orgs from OSvC
- **File Type**: Text file
- **File Name**: Orgs from OSvC.csv
- **Data Type**: Comma separated
- **Import Mapping**: OSvC-orig Orgs into CDM

**Source File**

**Summary**

![Create Import Activity: Enter Import Options]

**d.** In the next page, set the constant as indicated below. It's important that you set both the constants as shown below, as it's key to establishing the mapping between the organizations records in B2C Service and CDM:

![Set Constant Values]

<table>
<thead>
<tr>
<th>Object</th>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
<td>PartyOrgSystem</td>
<td>RNOW</td>
</tr>
<tr>
<td>Account</td>
<td>Type</td>
<td>ZCA_CUSTOMER</td>
</tr>
</tbody>
</table>

**Activate the activity so that the data can be imported. Wait till the import process completes and then view a sample organization record in CDM. Click on the “Source System References” link on the left navigation bar and confirm that an entry for B2C Service (Code = RNOW) is seen with a blank To Date. This is confirmation that an active mapping now exists between...
the organization record in CDM and the corresponding organization record in B2C Service.

Export from CDM

Now that the organizations that you imported into CDM have been successfully created, they would have each been assigned a unique PartyID. The import process also maps this PartyID to the organization ID that came in from B2C Service. So, CDM now has the organization record as also its mapping with B2C Service. The same mapping (Organization ID ↔ PartyID) must be stored in B2C Service as well. To accomplish this, we need to export the data out of CDM and import it into B2C Service.

Export the data (organizations and contacts) using the “Export Management” option available on CDM.

1. Export Management > **Create Export Activity**.
2. Select **Account** as the object that needs to be exported.

3. Define the set of attributes that need to be exported. Since we care only about the mapping between the two applications, it’s sufficient to export out only the unique identifiers (one from each application). Of course, you can include additional attributes to the export list, which will end up overwriting the current values in B2C Service.
   - PartyID
In addition to the attributes, the same page is also used to specify the filter to limit the data to be exported. (Note: At least one filter is mandatory.) In our example, we want to limit the exported organizations to ONLY Customer records that were updated very recently. So, the filter will be similar to:

4. Submit the export activity for processing and wait until the export is completed. The organizations that match the filter criteria are exported as a zip file that is accessible after the export job has finished. The zip file includes one or more CSV files containing the mapping between PartyIDs and Organization IDs.

As an example, below is a single entry from one of the CSV files (each CSV file can contain up to 50000 entries):

```
"Party ID","Party Source System Reference Value"
100000094938315,14650
```
Transform the Data

The data that was exported from CDM needs to be imported into B2C Service. Before doing the import, you may need to do a few transformations to the exported data to make it compatible with the format supported by the import process in B2C Service. Perform the following transformations:

The transformed data looks like this:

```
Party ID,Organization Name,Address,City,State,Postal Code,Country
300000022738665,Seven Seas Maritime Company,28488 Mission Blvd 25th Floor,Fresno,CA,93650,1
```

Import Data into B2C Service

The transformed data should then be imported into B2C Service using the Data Import Wizard. On the first page of the Data Import Wizard:

- a. Select Organization as the Data Record Type on Data Import Wizard.
- b. Specify the location of the CSV file containing the Party ID-to-Organization ID mappings.
- c. Leave the default delimited (comma).
- d. Most importantly, make sure that you don’t have the check boxes for CPMs and Workflow Rules checked.
- e. Because we expect each row that is uploaded to be already present in B2C Service and we want to update them, select the “Update Existing Data” for Duplicate Records option.

f. On the second page of the wizard, enter the mapping appropriate to your data. A sample mapping for the current example is shown below. Leave the Address section blank as we are not modifying the address in this example.

g. Check the Ignore on Update check box against organization id as we that attribute can’t be updated anyway. Since the lookup of organization is based on matching
organization id, the duplication criteria should be as shown in the following example.

h. Import the data. Once the import is complete, the wizard will display the statistics of the operation. Make sure that there are no inserts and no errors.

At the end of the import process, you have successfully loaded data from B2C Service into CDM and also established mappings between the two sets of data. You can now start the on-going data synchronization by activating the integration.

Scenario 3: Initial Data Exists in B2C Service and CDM

If data exists in both B2C Service as well as CDM, you would need to synchronize in both directions. You can accomplish this by breaking the task down into two steps:

- Copy CDM-origin data to B2C Service.
- Copy B2C Service-origin data to CDM.

Copy CDM-origin data to B2C Service
Follow the steps listed in an earlier section titled Initial Data exists only in CDM to synchronize data from CDM to B2C Service to CDM. There are two aspects to consider prior to performing this task:

- This task is necessary only if you require organizations and contacts that originated in other systems to also be available in B2C Service.
- One of the steps in this task is to export data from B2C Service by defining and executing a report. You should limit the exported data to only those that were copied over from CDM. This can be accomplished by filtering out rows that have a blank ext_ref, which is an attribute available on both organization and contact.

At the end of this task, you would have successfully copied data from CDM to B2C Service and also stamped those data in CDM with their corresponding unique identifier in B2C Service. It's recommended that you do not begin the next task until this task is successfully completed and verified.

**Copy B2C Service-origin data to CDM**

Follow the steps listed in an earlier section titled Initial Data exists only in B2C Service to synchronize data from B2C Service to CDM to B2C Service. There are two aspects to consider prior to performing this task:

- One of the steps in this task is to export data from B2C Service by defining and executing a report. You should limit the exported data to only those that were not copied over from CDM. This can be accomplished by filtering out rows that have a non-blank ext_ref, which is an attribute available on both organization and contact.

At the end of this task, you would have successfully copied data from B2C Service to CDM and also stamped those organizations and contacts in B2C Service with their corresponding unique identifier in CDM.

After successfully completing both tasks, both B2C Service and CDM should be in synch with each other. Additionally, both systems would also have the mapping of the data in the other system. After verifying the successful completion of both tasks, the integration can be activated. Prior to activating the integration, remember to suppress the bulk synchronization that occurs by default during activation. This can be done on the configurator by checking the check box titled *Skip bulk synchronization of organizations and contacts from CDM to Service when activating the integration.*
Appendix A: Custom Report to List Victim Contacts

Custom Report to List Victim Contacts

One of the limitations of the current implementation is that there is no obvious mechanism to detect organization and contacts that were identified as duplicates by CDM, and whose sub-objects were moved. You can, however, define a custom report that can list duplicate organizations and contacts.

Define a custom report on the transactions table.

1. Define the following filters:
   - transactions.tbl = Contacts AND
   - transactions.trans_type = Subobject Move AND
   - transactions.acct_id is null

2. Assign the following column titles to the report:
   - Master Contact
   - Duplicate Contact ID
   - Duplicate Contact First Name
   - Duplicate Contact Last Name
Your report definition will look something like this:

3. Save the report.
4. Execute the report to get an output similar to the following example:

You can now use the duplicate contact ids from the report to manually delete them (if necessary).

If you need a report of duplicate organizations, define a similar report, changing the filter on transactions.tbl from Contacts to Organizations.
Customize the Flows

This appendix explains the steps involved in customizing the integration between B2C Service and CDM to suit your business requirements.

It's assumed that you have successfully completed the setup of the integration between B2C Service and CDM. It's also assumed that you have a good understanding of the OIC platform and the integration flows prior to attempting the customization.

This appendix details the steps involved in modifying the mapping for the contact create flow. You would need to follow similar steps for contact update flow. If you need to modify the flows related to organization, the steps are broadly similar to those mentioned in this appendix.

Note: It's highly recommended that you click Save after each step or sub-step while you modify the flows on the OIC platform.

Step 1: Modify the Single Contact Create Flow
It's recommended that you retain the original flow untouched. Instead, create a new version (recommended) or a clone of the `OEC_CDM_OSV_C_CONTACT_SINGLE_CREATE` flow and, if necessary, rename it as appropriate.

1. Modify the Trigger: Add the new fields in the Request JSON Payload in the end (you can add it anywhere but it easier to add it at the end for clarity).
2. "PersonProfileId": 300000001789011", ContactName": "Ugo Morales1" as highlighted below are the newly added fields.

3. Accept the warning to update configuration by clicking ‘Yes’.

4. Reset the Tracking Field as shown:
5. Some of the mapping and invokes will start showing error. Redo all these mappings and redo mapping of invokes.

6. In case of Custom attributes, regenerate the artefacts of all SOAP (service cloud invokes), so that the new custom attributes become visible. Go to the connections screen, open the corresponding ‘Service cloud’ soap connection and save it. Then click regenerate as shown in the following screenshot:
7. When the artifact regeneration is finished, all the existing mappings would show as errors.

8. The mapping must be redone. Keep a backup of the code for the mapper for your reference by clicking the Code button which gives mappings XSL and then save the file.

9. Delete the target nodes which cause the errors and are displayed in red.
10. Using older code as reference, redo all the mappings.

11. Add new attribute mapping in the Create Contact invocation as shown following screen shot:
12. Validate that the mappings are valid. Mappings can be tested using test after generating and modifying the appropriate inputs.
13. Save the integration.
14. Activate the flow. This is a crucial step. If you miss this step, the flow will not be visible to parent flows when they try to invoke it.

**Step 2: Modify the Batch Contact Create File**

It is recommended that you keep the original flow untouched. Create a new version or clone the `OEC_CDM_OSVC_CONTACTS_BATCHED_CREATE` flow and rename it as appropriate.

1. Modify the Trigger: Add the new field in the Request JSON Payload.
2. Reset the Tracking Field

   .Some of the mapping/invokes will start showing error. Redo all these mappings and redo mapping of invokes.
3. In case of Custom attributes, regenerate artefacts of all soap (service cloud invokes), so that the new custom attributes become visible.
4. Add new attribute mapping in the CreateInvoke.

5. Although child integrations (if any) may not show any error, it's a good idea to reconfigure the integration so that the new field set in the child's trigger is available for mapping. Reconfigure Write Header with new attribute Name (using updated CSV for Contact, which now includes the new fields namely PersonProfileID and ContactName).
6. Add header mappings for the newly added fields.
7. Reconfigure Write with new attribute Name (using updated CSV for contacts).
8. Click next until last screen. On the last screen, upload modified CSV with new field mappings.

Add mappings for the newly added fields in Write File.

9. Reconfigure All ReadFile with new attribute Name (using updated CSV for contact). Similarly, for WriteCon and WriteConFile within the flow, reconfigure with updated CSV for contact.

10. Make similar changes within Fault Handler.

11. ReadContactFile: upgrade to modified contact.csv file which includes newly added field.
12. **CreateContactOneAtATime**: regenerate and add mapping as shown in the following example:
13. Select the modified child flow and activate.

14. CreateSingleContactAtaTime – regenerate and add mapping as shown in the following examples. When finished activate the flow. This is a crucial step, necessary to make it visible to parent flows.
Step 3: Modify the Zip Scope in the Main Flow
Before starting, make sure you create a version or a clone of `OEC_CDM_OSVC_ORG_CONTACT_CREATE_UPDATE` and rename it as appropriate.

1. Add column name in the mapping of `ContactBulkExportActivity`.
Step 4: Modify Last Scope in the ContactCreationScope Flow
Do this in **OEC_CDM_OSVC_ORG_CONTACT_CREATE_UPDATE** that you have either versioned or cloned in the previous step.

1. Reconfigure `ReadCurrentContactCSV`: Add the additional column in the CSV and use it.

   ![Configure Stage File Action](image)

   - **Select a New Delimited Data File**: Choose File | No file chosen
   - **Selected File Name**: contact.csv
   - **Enter the Record Name**: Contact
   - **Enter the RecordSet Name**: ContactSet
   - **Select the Field Delimiter**: Comma (,)
   - **Character Set**: UTF8
   - **Optionally Enclosed By**: "
   - **Terminated By**: ${eol}

   ![Schema Options](image)

   - **Detach**: Off
   - **Use First Row as Column Headers**: On
   - **Mark All As Optional**: Off

   ![Format Definition](image)

   - **PartyId**: String
   - **PartyNumber**: String
   - **SourceSystem**: String
   - **SourceSystemReference**: String
   - **AccountNumber**: String

2. Reconfigure `ContactCreateBatch Integration`
3. Open it and select the version modified and activated in steps listed above.

4. Click Basic Info.
5. Click Next.
6. Click Next.

7. Incorporate mapping of the new attributes here from CSV. (Sometimes reconfiguration of Child Integration invalidates all the present mapping; so you may need to do all the mappings again)

Step 5: Save and Activate the Main Flow
Here you activate the main flow **OEC_CDM_OSVC_ORG_CONTACT_CREATE_UPDATE** which was either versioned or cloned and modified in steps 3 and 4. Save this flow, then activate and schedule it appropriately.