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Preface

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

Using Oracle Applications

Using Applications Help

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

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

You can also read Using Applications Help.

Additional Resources

- **Community:** Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.

- **Guides and Videos:** Go to the Oracle Help Center to find guides and videos.

- **Training:** Take courses on Oracle Cloud from Oracle University.

Conventions

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

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

Documentation Accessibility

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website.

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

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

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

Audience and Scope

This guide outlines the implementation and configuration steps required to develop, configure, manage, and administer Digital Customer Service in Oracle Engagement Cloud. To set up and work with the additional features of Oracle Engagement Cloud, see Oracle Sales Cloud documentation on Oracle Help Center at https://docs.oracle.com.

This implementation guide is designed to be used as a starting point that shows how Digital Customer Service in Oracle Engagement Cloud can be developed and implemented using the Oracle Visual Builder Cloud Service. An implementor can use the documented development and configuration information in this guide to successfully deploy Digital Customer Service.


Each implementation of Oracle Engagement Cloud is unique, and leads to the development of customer-specific applications that support their unique business requirements.

Related Guides

To understand more about the information covered in this guide, refer to the list of guides in the following table.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Cloud Developing Applications with Oracle Visual Builder Cloud Service</td>
<td>Describes how to use a web-based visual development tool to create and publish custom web and mobile applications that can integrate business objects and applications REST services to extend SaaS services.</td>
</tr>
<tr>
<td>Oracle Engagement Cloud Using Service in Engagement Cloud</td>
<td>Contains information to help service managers, service personnel, and other service end users to perform day-to-day business tasks using Oracle Cloud.</td>
</tr>
<tr>
<td>Using Knowledge in Engagement Cloud</td>
<td>Describes how administrators, agents, authors, and other knowledge base contributors can implement and use Knowledge in Engagement Cloud.</td>
</tr>
<tr>
<td>Oracle Engagement Cloud Implementing Service in Engagement Cloud</td>
<td>Describes how to set up Service Request Management for Oracle Engagement Cloud.</td>
</tr>
<tr>
<td>Oracle Sales Cloud Getting Started with Your Sales Implementation</td>
<td>Describes your initial Oracle Sales Cloud service implementation procedures, based on a simple sales-force-automation use case.</td>
</tr>
</tbody>
</table>
# About This Guide

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Sales Cloud Implementing Sales</td>
<td>Contains conceptual information and procedures needed to implement components and features of Oracle Sales Cloud.</td>
</tr>
<tr>
<td>Oracle Sales Cloud Securing Sales</td>
<td>Contains information to help setup users and sales administrators configure access to Oracle Sales Cloud functionality and data.</td>
</tr>
<tr>
<td>Oracle Sales Cloud Security Reference for Sales Cloud</td>
<td>Lists the predefined security data that is included in the Sales offering.</td>
</tr>
</tbody>
</table>

**Related Topics**

- [Oracle Help Center](#)
2 About Digital Customer Service

Overview of Digital Customer Service

Oracle Digital Customer Service is an offering within Oracle Engagement Cloud that enables you to provide your customer account users self-service access to their service requests and relevant knowledge articles through a web interface.

The Digital Customer Service application user interface can be configured to reflect a company brand. Using Oracle Visual Builder Cloud Service, you define root pages and styles, and include various UI components, depending on your business needs.

Once configured and deployed, your customer's account users can self-register as Digital Customer Service users. Once the self-service registration is complete, Digital Customer Service users can sign in to the Digital Customer Service application UI to communicate with your customer service representatives using a web interface, chatting or cobrowsing.

The following figure provides a general overview of the Digital Customer Service architecture, including its relationship with Oracle Developer Cloud Service and Oracle Visual Builder Cloud Service.
About Digital Customer Service Terminology

This topic describes terminology related to the Digital Customer Service offering in Oracle Engagement Cloud. Some terminology is related to other software components.

- **Oracle Visual Builder Cloud Service**: A cloud-based visual development tool that provides easy access to data from any REST-based service, and enables the creation of custom reusable business objects for storing and managing data. You can create and test responsive web applications and native mobile applications without the need to install any additional software. The visual designer enables you to quickly lay out pages in your applications by dragging and dropping UI components, configuring their attributes and defining their behavior.

- **Root Page**: A page that contains the shell of your application including the header and footer and navigation components. An application can have multiple root pages.

- **Service APIs**: The REST APIs with which your Digital Customer Service application interacts.


- **Digital Customer Service Users**: Your customer account users who have successfully self-registered to use the Digital Customer Service application. These users can have a variety of roles.

- **Digital Customer Service Templates**: The available templates you can select while creating your Digital Customer Service application. These application templates include component extensions, themes, and depending on the template, predefined pages and actions.

- **Digital Customer Service Reference Implementation**: This template includes several pages and business components that enable basic support experience including: knowledge search, service request creation and management, chat, and self-service user management capabilities for the account administrator. The administrator manages all of the users and roles.

**Related Topics**

- Developing Applications with Oracle Visual Builder Cloud Service

About Digital Customer Service Roles

Digital Customer Service users can be granted different roles. This topic describes the details of the privileges granted with each role.

**Note**: By default, all users have access to knowledge search and article viewing. This can be configured to limit access to authenticated users through the security configuration within Oracle Visual Builder Cloud Service and the specific application.

**User**

The User role grants the privileges to view and edit service requests created by the user, and to create service requests. Removing this role causes the removal of all privileges. The only way to restore the privileges is to submit a new registration request.
Account Manager
The Account Manager role grants the privileges to view and edit all service requests for a specific customer account. Additionally, users with the Account Manager role can create service requests. The user can perform these tasks only on accounts for which they’re the Account Manager.

Account Administrator
The Account Administrator role grants the privileges to view and approve registration requests in the customer account for which they’re the Account Administrator. Additionally, the role permits the user to assign and remove the Account Administrator and Account Manager roles, and remove user roles in user accounts for which they’re the Account Administrator.

Related Topics
- Managing Self-Service Users
- Oracle Cloud Administering Oracle Visual Builder

About Technical Compatibility
This topic describes the software versions that are compatible with this release of the Oracle Digital Customer Service offering.


Oracle Digital Customer Service using Visual Applications is supported with Oracle Engagement Cloud 18B or 18C. Use the following software and specified versions with this Oracle Digital Customer Service release:
- Oracle Visual Builder Cloud Service 18.4.1 visual applications

✍ Note: Digital Customer Service uses Oracle Engagement Cloud REST APIs through Oracle Visual Builder Cloud Service. For more information, refer to the Oracle API Catalog Cloud reference in the Related Topics.

- Knowledge Management, Chat, Cobrowse, Service Request Management, and Digital Customer Service Administration packaged with Oracle Engagement Cloud Release 13.18.10 (18C)
- Oracle JavaScript Extension Toolkit (Oracle JET)
- Browsers supported by Oracle Visual Builder Cloud Service are listed in the Supported Browser topic in the Oracle Cloud Known Issues for Oracle Visual Builder Cloud Service. See the Related Topics that follow.

✍ Note: Digital Customer Service is not supported with Symantec Blue Coat Cloud Data Protection Gateway.
Determining the Version of Oracle Engagement Cloud

To determine the version of Oracle Engagement Cloud that you have installed:

1. Sign in to Oracle Engagement Cloud.
2. Select the menu next to the name of the signed-in user.
   
   The **Settings and Actions** menu appears.
3. Click **About This Application**.
   
   The **About This Application** dialog box is displayed. The version number appears after the word **Revision**.

**Related Topics**

- Implementing Digital Customer Service in Engagement Cloud Release 13 (Update 18B)
- What platforms are supported by Oracle JET?
- Oracle API Catalog Cloud Service
- Oracle Cloud Known Issues for Oracle Visual Builder Cloud Service
- Determining Extension Versions
3 Configuring Digital Customer Service for Initial Use

About Initial Digital Customer Service Setup

This topic describes the various initial tasks that you must complete to set up Digital Customer Service for initial use.
The tasks outlined in this topic refer to documents later in this chapter. Follow these steps to get your Digital Customer Service application running for initial use:

3. Configuring Profile Options.
5. Performing Role Synchronization.
7. Setting Up Authentication for Your Application.
10. Setting Up Products, Categories and Knowledge Articles.

Enabling Digital Customer Service

This topic describes how to enable the Digital Customer Service application.
You must enable Digital Customer Service in Oracle Engagement Cloud to have access to certain profile options and work areas. Once enabled, the following work areas are grouped with the Service icon in Oracle Engagement Cloud:

- Self-Service Users
- Registration Requests

The profile options in the following areas are available after enabling Digital Customer Service:

- Manage Digital Customer Service Account Setup Profile Options
- Manage Digital Customer Service Registration Profile Options

To enable the Digital Customer Service Application:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. In the Setup and Maintenance work area select the Service offering.
3. Click the Change Feature Opt In link.
   - The Opt In: Service page is displayed.
5. Click Done.
**Digital Customer Service** appears in the **Functional Areas** list. Selecting Digital Customer Service will reveal a related list of tasks.

**Related Topics**
- Managing Setup Using Offering Functional Areas: Procedure

**Configuring Oracle Visual Builder Cloud Service with Oracle Developer Cloud Service and Oracle Engagement Cloud Specifics**

This topic describes how to configure Oracle Visual Builder Cloud Service with specifics about Oracle Developer Cloud Service and Oracle Engagement Cloud.

After enabling Digital Customer Service in Oracle Engagement Cloud, you must configure Oracle Visual Builder Cloud service with Oracle Engagement Cloud details, and the details of Oracle Developer Cloud Service. Complete the following two tasks in Oracle Visual Builder Cloud Service:

- Specifying Oracle Developer Cloud Service Details
- Specifying Oracle Engagement Cloud Details

**Specifying Oracle Developer Cloud Service Details**

This topic describes how to configure Oracle Visual Builder Cloud Service for use with Oracle Developer Cloud Service.

To specify Oracle Developer Cloud Service details in Oracle Visual Builder Cloud Service:

1. Sign into Oracle Visual Builder Cloud Service as an administrator.
2. Click the **Menu** icon, and select **Settings**.

The **Tenant Settings** page appears.
3. Specify the Oracle Developer Cloud Service details in the **Component Exchange** section:
   a. In the **Service URL** text box, enter Oracle Developer Cloud project URL, using the following format:
      
      `https://<host>/profile/<org>/s/<org>_<project id>/compcatalog/<version>/`
   b. In the **User name** text box, enter an Oracle Developer Cloud administrator user.
   c. In the **Password** text box, enter an Oracle Developer Cloud administrator user password.

**Specifying Oracle Engagement Cloud Details**

This topic describes how to configure Oracle Visual Builder Cloud Service for use with Oracle Engagement Cloud.

To specify Oracle Engagement Cloud details in Oracle Visual Builder Cloud Service:

1. Sign into Oracle Visual Builder Cloud Service as an administrator.
2. Click the **Menu** icon, and select **Settings**.

The **Tenant Settings** page appears.
3. Specify the Oracle Engagement Cloud details in the Fusion Applications Cloud Service section:
   - In the Fusion Applications Base URL text box, enter Oracle Engagement Cloud URL.

Related Topics
- Managing and Monitoring Oracle Cloud

Configuring Profile Options

This topic describes Digital Customer Service profile options, including configuration instructions. The following two task lists apply to profile options for Digital Customer service:
- Manage Digital Customer Service Registration Profile Options
- Manage Digital Customer Service Account Setup Profile Options

Managing Digital Customer Service Registration Profile Options

The following table lists the profile options for Digital Customer Service Registration profile options.

<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Default Value</th>
<th>Possible Values</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_CSS_SELF_REGISTRATION</td>
<td>New Or Existing</td>
<td>None, New Or Existing, Existing Only</td>
<td>Specifies which contacts can self-register. If Existing is specified, only existing contacts can self-register.</td>
</tr>
<tr>
<td>SVC_CSS_SELF_REG_AUTO_APPROVE</td>
<td>False</td>
<td>True, False</td>
<td>Enables automatic approval for self-service user registration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If SVC_CSS_SELF_REG_AUTO_APPROVE is set to False and SVC_CSS_ACCT_ADMIN_APPROVE is set to True, then the Digital Customer Service Account Administrators can approve user registration requests in the Digital Customer Service Customer user interface. Also Digital Customer Service Administrators can approve registration requests in the Digital Customer Service Administration user interface.</td>
</tr>
<tr>
<td>SVC_CSS_ACCT_ADMIN_APPROVE</td>
<td>True</td>
<td>True, False</td>
<td>Enables the approval of self-service user registration requests by users with Digital Customer Service Account Administrator roles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If set to True, Digital Customer Service Account Administrators</td>
</tr>
</tbody>
</table>

Related Topics
- Managing and Monitoring Oracle Cloud
<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Default Value</th>
<th>Possible Values</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_CSS_ACCT_KEY_FIELD</td>
<td>OrganizationName</td>
<td>Any field in the Account object</td>
<td>Specifies a valid field name in the Account object. The field name is case sensitive.</td>
</tr>
<tr>
<td>Note: This option applies only when the SVC_CSS_SELF_REG_AUTO_APPROVE option is set to False.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC_CSS_REG_CONT_MAP</td>
<td>PersonFirstName:PersonFirstName</td>
<td>NULL</td>
<td>Specifies name and value pairs that map fields of the Registration View object to the Contact View object. When set to NULL, the same name is expected in both objects.</td>
</tr>
<tr>
<td>PersonLastName:PersonLastName</td>
<td>NULL</td>
<td>Any defined value, with a colon separating fields, and commas separating the pairs. For example, reg_field1:contact_field1 reg_field2:contact_field2</td>
<td></td>
</tr>
<tr>
<td>EmailAddress:EmailAddress</td>
<td>NULL</td>
<td>For example, reg_field1:contact_field1 reg_field2:contact_field2</td>
<td></td>
</tr>
<tr>
<td>SVC_CSS_SIGN_IN_ATTR_NAME</td>
<td>EmailAddress</td>
<td>The value of the assigned attribute must be unique. Possible values include: EmailAddress, UID</td>
<td>Specifies the sign-in attribute that users must specify in the Sign In ID field in the Registration View object. This field is used to determine whether the user exists in the Lightweight Directory Access Protocol server.</td>
</tr>
<tr>
<td>SVC_CSS_REG_FLD_CONTACT</td>
<td>EmailAddress</td>
<td>Any fields on the Contact object</td>
<td>Specifies the fields to use during the user registration process to determine if the registering user</td>
</tr>
</tbody>
</table>

Note: You must create an attribute in the account object to be the account key, because the default account key of account name is not secure.
### Configuring Digital Customer Service for Initial Use

#### Lookup Code

<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Default Value</th>
<th>Possible Values</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_CSS_SEND_WELCOME_EMAIL</td>
<td>True</td>
<td>True, False</td>
<td>Enables sending a welcome email when a new user account is created.</td>
</tr>
<tr>
<td>SVC_CSS_USER_ROLE_COMMON_NAME</td>
<td>ORA_SVC_CUSTOMER_SELF_SERVICE_USER_ABSTRACT</td>
<td>A string representing the name of the role that is set up for Customer Self-Service users. Typically, this is a copy of a Customer Self-Service User with additional privileges added.</td>
<td>Specifies the common name of the role granted to previously created Customer Self-Service Users. For more information refer to Assigning Custom Job Roles in the Related Topics.</td>
</tr>
<tr>
<td>SVC_CSS_ACCT_ADMIN_ROLE_COMMON_NAME</td>
<td>ORA_SVC_CUSTOMER_SELF_SERVICE_ACCOUNT_ADMINISTRATOR_ABSTRACT</td>
<td>A string representing the name of the role that is set up for Customer Self-Service Account Administrator. Typically, this is a copy of a Customer Self-Service Account Administrator with additional privileges added.</td>
<td>Specifies the common name of the role granted to the previously created Customer Self-Service Account Administrators. For more information refer to Assigning Custom Job Roles in the Related Topics.</td>
</tr>
<tr>
<td>SVC_CSS_USERCATEGORY</td>
<td>An empty string</td>
<td>A string</td>
<td>Specifies the user category that defines the URL to which the self-service user is redirected after a password reset. The user category is defined in the Security Console.</td>
</tr>
<tr>
<td>SVC_CSS_IMP_SIGN_IN_ATTR_NAME</td>
<td>PrimaryEmailAddress</td>
<td>Any field on the Contact object</td>
<td>Specifies a field in the Contact object to be used as the sign-in attribute when importing data into the Self-Service Roles object. The field name is case sensitive.</td>
</tr>
</tbody>
</table>

### Managing Digital Customer Service Account Setup Profile Options

The following table lists the profile options for Digital Customer Service Account Setup profile options.

<table>
<thead>
<tr>
<th>Lookup Code</th>
<th>Default Value</th>
<th>Possible Values</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVC_AC_MQS_ACCOUNT_ID</td>
<td>None</td>
<td>A string that represents the value of the identity domain assigned to your order.</td>
<td>Associates the Account ID to the identity domain assigned to the order. This represents the Identity Domain shown in the MyAccount UI in Cloud Portal</td>
</tr>
</tbody>
</table>

---

**Note:** The field names are case sensitive.
### Setting Digital Customer Service Profile Options

This topic describes how to set profile options for Digital Customer Service. The profile options specific to Digital Customer Service are found in two task areas: Manage Digital Customer Service Registration Profile Options and Manage Digital Customer Service Account Setup Profile Options.

To find and set the Digital Customer Service profile options:

1. Sign in to Oracle Engagement Cloud as administrator or a setup user.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Digital Customer Service
   - Task: Manage Digital Customer Service Registration Profile Options
   or
   - Task: Manage Digital Customer Service Account Setup Profile Options
3. Click the name of the profile option that you want to modify.
4. Set the profile option value as needed.
5. Click **Save and Close**.

**Related Topics**
- Managing Setup Using Offering Functional Areas: Procedure

### Assigning Custom Job Roles

This topic describes how to assign custom job roles for use in Digital Customer Service.

There are many reasons why you might create a custom job role for Customer Self-Service users. One possible reason is when you create a custom object and want to assign privileges to that object.

To assign custom job roles for use in Digital Customer Service:

1. Create a custom role by making a copy of one of the following predefined roles:
   - Customer Self-Service User
   - Customer Self-Service Account Administrator

   For more information about creating custom roles by making copies of roles, refer to the Copying Sales Roles: Points to Consider and Copying Job or Abstract Roles: Procedure links in the Related Topics.
2. Set the value of the appropriate Digital Customer Service profile option to the name of the custom role you created. The following profile options can be set to the name of the custom role:

- **SVC_CSS_USER_ROLE_COMMON_NAME**: If the value of this profile option is set to the name of a custom role, then all Customer Self-Service Users will be assigned this role when they are provisioned.
- **SVC_CSS_ACCT_ADMIN_ROLE_COMMON_NAME**: If the value of this profile option is set to the name of a custom role, then all self-service users who are assigned the Customer Self-Service Account Administrator role will receive this custom role.

For more information about setting profile options, refer to the Configuring Profile Options topic.

*Note:* If in the future, you want to change the profile option values while your Digital Customer Service application is already in use, you must perform a mass update of all existing users from the old roles to the new roles. Your Digital Customer Service application will not automatically update existing roles already granted to a user to the new roles.

**Related Topics**

- Copying Sales Roles: Points to Consider
- Copying Job or Abstract Roles: Procedure

---

## Performing a Role Synchronization

This topic describes how to configure a role synchronization. The instructions to configure role synchronization are described in the Synchronize Oracle Fusion Applications Cloud Service User Identities and Roles with Oracle Identity Cloud Service topic cross-referenced in the Related Topics. Oracle Engagement Cloud must be the identity provider for Oracle Digital Customer Service.

Perform all of the tasks in the cross-referenced document to synchronize users and roles for your Digital Customer Service application:

1. Create an OAuth Client Application in Oracle Identity Cloud Service
2. Configure an Oracle Identity Cloud Service Endpoint in Oracle Fusion Applications Cloud Service
3. Configure the Client Application Credentials in Oracle Fusion Applications Cloud Service
4. Modify ESS Sync Job Profiles. Use the following specifications when completing this step:
   - Set `FND_USER_IDENTITY_SYNC_TARGET` to `IDCS`.
   - Set `FND_SYNC_JOB_TYPE` to `ALL`.
   - Set `FND_USER_MIGRATION_FA_FEDERATION` to `TRUE`.
5. Configure ESS Sync Job Role Synchronization
6. Schedule Synchronization from Oracle Fusion Applications Cloud Service to Oracle Identity Cloud Service
7. Review and Monitor ESS Sync Job Results
8. (Optional) Reset ESS Synchronization Data

*Note:* In some situation, you might need to reset the ESS synchronization data. If you do, you must complete step 5 (Configure ESS Sync Job Role Synchronization) again after this step.
Related Topics

- Synchronize Oracle Fusion Applications Cloud Service User Identities and Roles with Oracle Identity Cloud Service

Setting Up the APPID User, Administrators, and Developers

This topic describes how to create a role, create the APPID user, administrators and developers for Digital Customer Service in Oracle Engagement Cloud.

Creating the Role for the APPID User

An administrator-defined job role with the required privileges for Digital Customer Service must be created and then granted to a new APPID user. The APPID user is required for Sales, Service and self-registration. This task ensures that the APPID user does not have more privileges than required. The APPID user is required in situations where anonymous users need to access services from Oracle Engagement Cloud, such as REST APIs that are restricted.

Once you complete this task, you must complete the subsequent Creating the APPID User task to create the APPID user and assign the newly created role to that user.

To create the role for the APPID user:

1. Sign in to Oracle Engagement Cloud.
2. Navigate to the Security Console work area and click the Roles tab.
3. Click Create Role.
4. In the Role Name field, enter the following text:
   Self-Service APPID Users
5. In the Role Code field, enter the following text:
   SELF_SVC_APPID_USERS
6. From Role Category list, select CRM - Job Roles.
7. Click the Next.
8. Click the Privileges tab.
9. Click Add Function Security Policy.
   The Add Function Security Policy dialog appears.
10. In the Search field, enter each of the following security policies, then click Add Privilege to Role:
    - Create Service Role
    - Use REST Service to Create Registration Request
    - Use REST Service to View Products
    - Request for chat

   \[\textbf{Note:}\] A Confirmation dialog appears each time you click Add Privilege to Role. Click OK after adding each privilege.

11. Click Cancel to close the Add Function Security Policy dialog box.
12. On the Create Role Self-Service Registration Users page, verify that the privileges that you added are listed, then click Next.
13. Create the **View All Accounts and Contacts** security policy:

   a. Click **Create Data Security Policy**.

      The **Create Data Security Policy**. dialog appears.

   b. In the **Policy Name** field, enter the following text:

      View All Accounts and Contacts

   c. In the **Database Resource** field, search for and click the following resource, then click **OK**:

      Trading Community Party

   d. In the **Data Set** list, select **All values**.

   e. In the **Actions** list, select the following options:

      - View Trading Community Person
      - Read
      - View Trading Community Organization

   f. Click **OK**.

14. Create the **View Service Categories** security policy:

   a. Click **Create Data Security Policy**.

      The **Create Data Security Policy**. dialog appears.

   b. In the **Policy Name** field, enter the following text:

      View Service Categories

   c. In the **Database Resource** field, search for and click the following resource, then click **OK**:

      Service Category

   d. In the **Data Set** list, select **Select by instance set**.

   e. In the **Condition Name** list, select **Access the service category for table SVC_CATEGORIES for all customer relationship management service categories**.

   f. In the **Actions** list, select the following option:

      - View Service Category

   g. Click **OK**.

15. Create the **Grant on Self Service Registration** security policy:

   a. Click **Create Data Security Policy**.

      The **Create Data Security Policy**. dialog appears.

   b. In the **Policy Name** field, enter the following text:

      Grant on Self Service Registration

   c. In the **Database Resource** field, search for and click the following resource, then click **OK**:

      Self Service Registration

   d. In the **Data Set** list, select **All values**.

   e. In the **Actions** list, select the following option:

      - **Read**

   f. Click **OK**.
Create the **Grant on Self Service Role** security policy:

a. Click **Create Data Security Policy**.
   The **Create Data Security Policy** dialog appears.

b. In the **Policy Name** field, enter the following text:
   **Grant on Self Service Role**

c. In the **Database Resource** field, search for and click the following resource, then click **OK**:
   **Self Service Role**

d. In the **Data Set** list, select **All values**.

e. In the **Actions** list, select the following option:
   - **Read**

f. Click **OK**.

17. Click the **Summary** step.

18. Click **Save and Close**.
   A dialog appears, confirming the role changes.

19. Click **OK**.

Creating the APPID User

Once you have created the role for the APPID user, you must create the APPID user, and assign the role to the user.

To create the APPID user:

1. Sign in to Oracle Engagement Cloud.
2. Navigate to the **Security Console** work area and click the **Users** tab.
3. Click **Add User Account**.
4. Enter the values in the required fields.
5. Click **Add Role**.
   The **Add Role Membership** dialog appears.
6. Search for and click on the following role:
   **Self-Service APPID Users**

   **Note:** This role was created in the Creating the Role for APPID User task.

7. Click **Add Role Membership**.
   A confirmation dialog appears.
8. Click **OK**.
9. Click **Done**.
10. Click **Save and Close**.

Creating a Developer or Administrator with Appropriate Roles

To work with business objects relevant to Digital Customer Service, the developer must be a Digital Customer Service user and must be granted the appropriate roles.
Note: You must set up role synchronization before setting up the Digital Customer Service developer user account. For more information about role synchronization, refer to Performing a Role Synchronization.

To create a Digital Customer Service developer or administrator, follow the instructions in these tasks:

1. Create a Test Customer Account

   Note: This task is completed only once. The following two tasks must be completed for every Developer or Administrator.

2. Create a User Through REST API
3. Approve the User
4. Create and Assign the DCS Developer Role

Creating a Test Customer Account

Before creating the Digital Customer Service developer or administrator user, a test customer account must be created and used when creating the new developer and administrator users. An account key is required when creating a new Digital Customer Service user.

Note: You only need to create the test customer account once. This test customer account can be used by all Developers and Administrators.

For more information about creating an account, see Setting Up Customer Accounts.

Creating a User Through REST API

This task will require the use of Postman or another REST API Tool.

To create a user through REST API, run the following command for each user who will be developing Digital Customer Service applications:

Note: Run this command as using the previously created APPID user.

url: .../crmRestApi/resources/11.13.18.05/selfRegistrations
Authorization:
  Type: Basic Auth
Username: DCS_SELF_REG_APPID (created in previous section)
Header:
  Accept - application/json
  Content-Type - application/vnd.oracle.adf.resourceitem+json
Action: Post
Payload:
{
  "AccountKey" : "<test_customer_account>",
  "EmailAddress" : "<user_email@company.com>",
  "LoginId" : "<user_login>",
  "PersonFirstName" : "<user_firstname>",
  "PersonLastName" : "<user_lastname>",
}

Where the <test_customer_account> is the test customer account that you created in the previous task. The same test customer account can be specified for all Administrators and Developers. The <user_login> is the ID that you want to use to sign in. The <user_email@company.com> is the email of the Digital Customer Service user that you are creating.
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Note: The user will be created with a Status of Pending if the auto-approve feature is disabled.

Approving the User
Once the Administrator or Developer user is created, it remains in a Pending Status until it is approved in Oracle Engagement Cloud. You must approve the user, then you must assign the appropriate role.

Note: If it is the first user approved for this account, the user will automatically have the account administrator role. For all subsequent users, the Account Administrator role must be assigned.

For more information about approving the user, refer to Managing Registration Requests. For more information about assigning the Digital Customer Service Account Administrator role, refer to Managing Self-Service Users.

Creating and Assigning the the DCS Developer Role
Once you have approved the user, you must use the Security Console to create a DCS Developer role with appropriate security policies, duty roles, and job roles. The DCS Developer role will then be assigned to the user.

To create the DCS Developer role:

1. Sign in to Oracle Engagement Cloud as an administrator.
2. Navigate to the Security Console work area and click the Roles tab.
3. Click Create Role.
4. In the Role Name field, enter the following text:
   DCS Developer
5. In the Role Code field, enter the following text:
   DCS_DEVELOPER
6. From Role Category list, select CRM - Job Roles.
7. Click the Next.
8. On the Function Security step, click the Privileges tab.
9. Click Add Function Security Policy.
   The Add Function Security Policy dialog appears.
10. In the Search field, enter each of the following security policies, then click Add Privilege to Role:
   o Manage Extensible Object
   o View Administration Link
   o View Role
   o View User Account
   o Setup and Maintain Applications

   Note: A Confirmation dialog appears each time your click Add Privilege to Role. Click OK after adding each privilege.

   Click Cancel to close the Add Function Security Policy dialog box.
11. Click the Role Hierarchy step.
12. Click Add Role.
The **Add Role Membership** dialog appears.

13. In the **Search** field, enter each of the following duty roles and job roles, then click **Add Role Membership**:

- Customer Self-Service Administration
- Service Request Administrator

\[\textbf{Note:}\] Your search will reveal more than one role. Add the role with the following code: ORA_SVC_SR_ADMINISTRATOR.

- Service Sales Party Management
- Customer Self-Service User
- Customer Self-Service Account Administrator
- Knowledge Author Service
- Custom Objects Administration

\[\textbf{Note:}\] A Confirmation dialog appears each time you click **Add Role Membership**. Click **OK** after adding each privilege.

14. Click **Cancel** to close the **Add Role Membership** dialog box.
15. Click the **Summary** step.
16. Click **Save and Close**.

A confirmation dialog appears.

17. Click **OK**.

To assign the role to the DCS Developer:

1. Sign in to Oracle Engagement Cloud.
2. Navigate to the **Security Console** work area and click the **User** tab.
3. Search for the user that created in the Creating a User Through REST API section.
4. From the search results, click the user.
5. Click **Edit**.

The **Edit User** page appears.

6. Click **Add Roles**.

The **Add Role Membership** dialog appears.

7. Search for the following role:

\[\textbf{DCS Developer}\]

8. Click **Add Role Membership**.

A confirmation dialog appears.

9. Click **OK**.
10. Click **Done**.
11. Click **Save and Close**.

\[\textbf{Note:}\] This user should already have Customer Self-Service user and Customer Self-Service Administrator roles. For more information, refer to Performing a Role Synchronization in the related topics.
Use the My Services application to grant the developer user the Application Builder Developer role and the Application Builder Administrator role. For more information, refer to the Getting Started topic in the Administering Oracle Visual Builder listed in the Related Topics.

**Note:** Once the user is approved, an email is sent to the user with a link to reset the user account password. The user password must be reset.

**Related Topics**
- About Digital Customer Service Roles
- Administering Oracle Visual Builder
- Managing Registration Requests
- Managing Self-Service Users

### Creating a New Digital Customer Service Application

This topic describes how to create a new Digital Customer Service application in Oracle Visual Builder Cloud Service.

**Note:** This topic is one of many required for the initial setup of Digital Customer Service. For more information about initial setup tasks required to get started with your Digital Customer Service application, see the related topics that follow.

To create a new Digital Customer Service application:

1. Sign in to the Oracle Visual Builder Cloud Service editor as a user with the Developer role.
2. Click **New**.
   The **Create Application** dialog appears.
3. Click the **Digital Customer Service Reference implementation for Engagement Cloud** tile.
   This template creates an application with basic service functionality, including the ability to create and update SRs, search knowledge, and chat with an agent.
4. Specify the **Application Name**.
5. Specify the **Application ID**.
   The **Application ID** is automatically derived from the specified Application Name, but you can change it, if desired. The Application ID cannot be modified once the application is created: it appears in the application URL.
6. Click **Finish**.
   The Digital Customer Service application has been created. You are now ready to configure your Digital Customer Service application to meet your business needs.

**Note:** When Oracle Engagement Cloud is deployed with multiple business units, additional configuration is required. For more information, refer to the Configuring Multiple Business Units with Digital Customer Service topic in the Related Topics.

**Related Topics**
- About Digital Customer Service Terminology
• Mapping Roles
• Configuring Multiple Business Units with Digital Customer Service

Setting Up Authentication for Your Application: Procedure

For your application to run properly, you must first set up system-to-system authentication between your Digital Customer Service application and Oracle Engagement Cloud.

To complete the tasks in this topic, you must be signed in to the Oracle Visual Builder Cloud Service with a valid developer or administrator account. This account was created in the previous topic. For more information about the developer user account that you created, refer to "Setting Up the APPID User, Administrators, and Developers" earlier in this chapter.

To set up authentication, perform the following tasks:

2. Click Service Connections.
3. Configure authentication for Sales and Service:
   a. Click Sales and Service.
      The Sales and Service tab opens.
   b. Click the Authentication tab.
   c. Select Oracle Cloud Account from the Authentication Mechanism list.
   d. Select the Allow anonymous access option.
   e. Select Basic from the Anonymous Authentication Mechanism list.
   f. In the User name field, enter the user name of APPID user.

   ![Note:](image)
   You created the APPID user when setting up the APPID user, administrators, and developers. For more information, refer to the "Setting Up the APPID User, Administrators, and Developers" topic.

   g. In the Password field, enter the password of APPID user.

   ![Note:](image)
   You created the APPID user when setting up the APPID user, administrators, and developers. For more information, refer to the "Setting Up the APPID User, Administrators, and Developers" topic.

**Related Topics**
• Overview of Digital Customer Service Components

Setting Up Customer Accounts

This topic describes how to set up end user customer accounts for Digital Customer Service. End user customers are required to have a known account key. This account key is required to enable the end user to self-register.
You must set up a customer account for testing your Digital Customer Service application. To set up a customer account, you are required to know the account key.

Configuring the Account Key

To set up customer accounts to use Digital Customer Service, you must create an account and associate it with an account key.

The account key is used to uniquely identify an account. The account key is determined by the value assigned to the SVC_CSS_ACCT_KEY_FIELD profile option. For more information about configuring profile options, refer to the Configuring Profile Options topic in the Related Links.

By default, the SVC_CSS_ACCT_KEY_FIELD profile option is mapped to the OrganizationName field. You must create an attribute to be the account key, because the default account key of OrganizationName is not secure.

To create the Account Key and set it in Oracle Engagement Cloud:

1. Create and configure the Account Key:
   a. Create an Account Key field in the account object.
   b. Add the Account Key field that you created in Step a to the relevant account pages.

   ✔️ Note: You must make the Account Key field a required field on the Create Account page.

   For more information about working with fields, refer to the Working with Fields topic in the Related Topics.

2. Set the Account Key profile:
   a. Set the SVC_CSS_ACCT_KEY_FIELD profile option to the Account Key created in Step 1.

   For more information about configuring profile options, refer to Configuring Profile Options in the Related Topics.

Creating a Customer Account in Oracle Engagement Cloud

To set up a customer account:

1. Sign in to Oracle Engagement Cloud.
2. Navigate to the Service work area and click Accounts.
3. Click Create Account.
4. Enter the Name.
5. Select Customer from the Type menu.
6. Specify the account key in the appropriate field.

✔️ Note: The field in which you enter the account key differs depending on your deployment. The account key should be specified in the attribute that you defined for the account key.
7. Click **Save and Close**.

### About End User Self-Registration User Account Creation

The Oracle Digital Customer Service Reference Implementation has sample pages that provide the ability for an end user to self-identify and register within the application.

The end user needs the account key to register successfully.

**Related Topics**
- Working with Fields

### Setting Up Products, Categories and Knowledge Articles for Digital Customer Service

This topic describes how to create products and categories, and author knowledge articles, specific to Digital Customer Service. Product items and groups are used within the Digital Customer Service application to provide better support and knowledge article navigation. Additionally, product items and groups facilitate associating service requests for process flows within Oracle Engagement Cloud. Consider your creation and use of product items and groups as a mechanism to improve the customer experience.

> **Note:** This topic is one of many required for the initial setup of Digital Customer Service. For more information about initial setup tasks required to get started with your Digital Customer Service application, see the Related Topics.

To configure products and categories for service request management:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. Configure the products that are available in service requests.
   - **Note:** When creating your products, the following options must be selected: **Eligible to Sell**, **Eligible for Service** and **Enable Customer Self-Service**.
   
   For information about configuring products, refer to the Related Topics.
3. Configure the available categories for service requests.
   
   For information about configuring categories, refer to the Related Topics.
4. Author Knowledge articles that you want users to have access to in their Digital Customer Service applications.
   
   For information about creating and editing knowledge articles, refer to the Related Topics.

**Related Topics**
- Managing Service Request Categories: Explained
- Working with Sales Products: Procedures
- Knowledge Articles: Explained
Importing Self-Service Users

This topic describes how to import self-service users for use with your Digital Customer Service application. Prior to performing the tasks in this topic, accounts and contacts must be created or imported in Oracle Engagement Cloud. For more information about performing these prerequisite tasks, refer to the Related Topics.

Downloading the Self-Service Roles Template

This section describes how to download the self-service roles template. The self-service roles template contains the following fields:

- AccountPartyId
- AccountPartyNumber
- AccountPartyOrigSys
- AccountPartyOrigSysRef
- ActionCode
- ContactOrigSys
- ContactOrigSysRef
- ContactPartyId
- ContactPartyNumber
- DeleteFlag
- EndDate
- ErrorMessage
- JobDefinitionName
- JobDefinitionPackage
- LoginId
- RegistrationId
- RelationshipTypeCd
- RoleId
- StartDate

To download the self-service roles template file:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. In the Setup and Maintenance work area, click the Task menu, and select Search.
3. Search for the following task:
   Manage File Import Objects
4. Click Manage File Import Objects from the search results.
5. Enter the following string in the text box at the header of the Code column:
   ORA_SVC_CSS_ROLES
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6. Click the Enter key.

7. Click the ORA_SVC_CSS_ROLES row in the Manage File Import Objects list.

8. Click Download Template.

9. Click Save File, then OK.

10. Specify a download location for the template file, then select Save.

11. When the download completes, click Done.

The ORA_SVC_CSS_ROLES_Template.zip is downloaded.

Preparing the Import File

This section describes how to prepare the import file for importing self-service users. For more information about file-based data import, refer to Understanding File-Based Data Import and Export in the Related Topics.

To prepare the import file:

1. Locate, and open the ORA_SVC_CSS_ROLES_Template.zip file that you saved in the Downloading the Self-Service Roles Template topic.

2. Extract the SVC_SELF_SERVICE_ROLES.csv file.

3. Open the SVC_SELF_SERVICE_ROLES.csv file.

**Note:** The SVC_SELF_SERVICE_ROLES.csv file contains many fields that are not required. The following fields are mandatory: AccountPartyId, ContactPartyId, LoginId, RelationshipTypeCd. You can remove any of the unused fields from the first row of the file.

4. For each self-service user you plan to import, enter the following data in a dedicated row:

   a. Enter the account information relating to the self-service user in the AccountPartyId or AccountPartyNumber column.
   
   b. Enter the contact information relating to the self-service user in the ContactPartyId or ContactPartyNumber column.
   
   c. Enter the login ID relating to the self-service user in the LoginId column.

   **Note:** If the SVC_CSS_IMP_SIGN_IN_ATTR_NAME profile option is set, then the LoginId optional.

   d. Enter the roles to assign to the self-service user in the RelationshipTypeCd column. The following values can be assigned:

      - ORA_CSS_USER
      - ORA_CSS_ACC_MGR
      - ORA_CSS_ACC_ADMIN

   **Note:** Multiple roles can be assigned to a user and must be concatenated with the following character: &. For example: ORA_CSS_USER&ORA_CSS_ACC_ADMIN

5. Repeat step 4, on a dedicated row for each additional self-service user you want to import.

   **Note:** For each AccountPartyId or AccountPartyNum, at least one user in the import file must have the ORA_CSS_ACC_ADMIN role assigned.

7. Include the SVC_SELF_SERVICE_ROLES.csv in a new SVC_SELF_SERVICE_ROLES.zip archive, and save it.

Consider the following sample data in the SVC_SELF_SERVICE_ROLES.csv file:

**Example 1**

<table>
<thead>
<tr>
<th>AccountPartyId, ContactPartyId, RelationshipTypeCd</th>
</tr>
</thead>
<tbody>
<tr>
<td>300100110957452, 300100156316610, ORA_CSS_User &amp; ORA_CSS_ACC_ADMIN</td>
</tr>
</tbody>
</table>

**Example 2**

<table>
<thead>
<tr>
<th>AccountPartyNum, ContactPartyNum, RelationshipTypeCd</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRM_67617, CDRM_743628, ORA_CSS_USER</td>
</tr>
<tr>
<td>CDRM_67617, CDRM_743711, ORA_CSS_USER &amp; ORA_CSS_ACC_ADMIN</td>
</tr>
<tr>
<td>CDRM_67617, CDRM_743651, ORA_CSS_USER &amp; ORA_CSS_ACC_MGR</td>
</tr>
</tbody>
</table>

**Example 3**

<table>
<thead>
<tr>
<th>AccountPartyNum, ContactPartyNum, LoginId, RelationshipTypeCd</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRM_67617, CDRM_743628, Mary.Smith, ORA_CSS_USER</td>
</tr>
<tr>
<td>CDRM_67617, CDRM_743711, John.Rogers, ORA_CSS_USER &amp; ORA_CSS_ACC_ADMIN</td>
</tr>
<tr>
<td>CDRM_67617, CDRM_743651, Pat.Williams, ORA_CSS_USER &amp; ORA_CSS_ACC_MGR</td>
</tr>
</tbody>
</table>

### Importing the Self-Service Users

Before proceeding with the instructions in this section, you must have completed the steps in the previous sections:

- Downloading the Self-Service Roles Template
- Preparing the Import File

> **Note:** Before beginning your import, Oracle Recommends that you ensure that the `ZBS_TI_RETRY_ATTEMPTS` profile option is set to 1.

To import the self-service users:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. In the *Setup and Maintenance* work area, click the *Task* menu, and select *Search*.
3. Search for the following task:

   **Manage File Import Activities**

4. Click *Manage File Import Activities* from the search results.
5. Click the + button (Create).

   The **Create Import Activity: Enter Import Options** screen is displayed.

6. Enter a name in the *Name* field.
7. From the *Object* list, select *Self-service roles*.
8. In the *Source File* section, select the *Desktop* option for *Upload From*.
9. Click *Browse*, to locate and specify the SVC_SELF_SERVICE_ROLES.zip file that you created in step 7 of the Create the Import File section.
10. Click *Next*.

   The **Create Import Activity: Map Field** screen is displayed.
11. Verify the mappings are as expected. If necessary, make your corrections.
12. Click *Next*.

   The **Create Import Activity: Create Schedule** screen is displayed.
13. From the *Schedule* list, select *Immediate*.
14. Click **Next**.

Your import job is listed in the **Manage Import Activities** list. The **Status** value of your job will change multiple times during processing, until it is **Completed** or **Completed with Errors**.

**Note:** If the Status value is **Completed with Errors**, some users might not have been imported. Click the **Completed with Errors** link to view the error details. You must open the compressed error file to see which lines failed and the actual error. For more information about importing users, refer to Importing Users Overview in the Related Topics.

**Sending Pending LDAP Requests**

Perform this task after successfully importing the self-service user roles.

To send the pending LDAP requests:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. Navigate to the **Scheduled Processes** work area.
3. Click **Schedule New Process**.
   
   The **Schedule New Process** dialog box appears.
4. Select the **Job** option.
5. Click the **Name** menu, then select **Search**.
6. Enter the following string in the **Name** text box, then click **Search**: 

   **Send Pending LDAP Requests**
7. Click **Send Pending LDAP Requests**, then click **OK**.
8. Click **OK** on the **Schedule New Process** dialog box.
   
   The **Process Details** dialog box appears.
9. Click **Submit**.
   
   A **Confirmation** dialog is displayed.
10. Click **OK**.

   Monitor the job. When it’s complete, the newly imported self-service users are created in LDAP.

**Related Topics**

- Understanding File-Based Data Import and Export
4 Configuring Additional Features within Digital Customer Service

Configuring Multiple Business Units with Digital Customer Service

This topic describes how to configure your Digital Customer Service application if you have multiple business units in Oracle Engagement Cloud.

When you have multiple business units, additional configuration is required once you have created your Digital Customer Service applications. Each business unit must have its own Digital Customer Service application.

⚠️ Note: Only one business unit is supported per Digital Customer Service application.

For more information about setting up multiple business units, refer to the following cross-references in the Related Topics section: Setting Up Business Units for Service and Multiple Business Units in Sales Cloud.

Once you have created your Digital Customer Service applications, follow the instructions in the following sections of this topic:

1. Locate the business unit ID in Oracle Engagement Cloud.
2. Specify the business unit ID in the Digital Customer Service application.
3. Configure the Business Unit ID for the Open Service Requests list.

Locating the Business Unit ID

To locate the business unit ID for your Digital Customer Service application:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Company Profile
   - Task: Manage Business Unit
3. Locate your business unit in the Search Results list and copy the value in the BusinessUnitId column.

   If you do not see a BusinessUnitId column, click the View menu to access the Columns menu, and then select the columns to display.

   ⚠️ Note: You will need to use the value that you copied in the Specifying the Business Unit ID and Product Catalog Usage Code in the Digital Customer Service Application task.
Locating the Product Catalog Usage Code

To locate the Product Catalog Usage Code for your Digital Customer Service application:

1. Sign in to Oracle Engagement Cloud as an administrator or a setup user.
2. In the Setup and Maintenance work area, go to the following:
   - Offering: Service
   - Functional Area: Business Units
   - Task: Manage Service Product Group Usage for Business Unit
3. Locate your business unit in the Search Results list and click it.
4. Click Apply and Go to Task.
5. Copy the value in the Business Unit Profile Value text box.

**Note:** You will need to use the value that you copied in the Specifying the Business Unit ID and Product Catalog Usage Code in the Digital Customer Service Application task.

Specifying the Business Unit ID and Product Catalog Usage Code in the Digital Customer Service Application

Once you have located the business unit ID and product catalog usage code in Oracle Engagement Cloud, you must specify them in your Digital Customer Service application.

To specify the business unit ID and product catalog usage code:

2. Open your Digital Customer Service application.
3. Click the Web Apps tile.
4. In the Web Apps tree, click dcs.
   A dcs tab appears.
5. Click the (x) (Variables) icon.
6. Set the business unit ID:
   a. Click businessUnitId.
   b. In the Default Value text box, specify the value that you copied in Step 3 of the Locating the Business Unit ID task.
7. (Optional) Set the non-default usage code:
   a. Click usageCode.
   b. In the Default Value text box, specify the value that you copied in Step 5 of the Locating the Product Catalog Usage Code task.

**Related Topics**

- Creating a New Digital Customer Service Application
- Multiple Business Units in Sales: Overview
- Setting Up Business Units for Service: Overview
Configuring Cobrowse

This topic describes how to configure Oracle Cobrowse for Digital Customer Service.

Setting Up Cobrowse

Setting up Oracle Cobrowse is a task that occurs in Oracle Service Cloud. This topic describes what is required from Oracle Service Cloud, before integrating the Oracle Cobrowse script tag in your Digital Customer Service application.

To set up Oracle Cobrowse:

1. Configure the Oracle Cobrowse widget using the Oracle Cobrowse administration UI. For more information, refer to topics about configuring the Cobrowse user interface in the Implementing Standalone Cobrowse guide.
2. Locate the src URL, which is in the Cobrowse Launcher Script in the Oracle Cobrowse administration UI. For more information, refer to topics about configuring your company deployment in the Implementing Standalone Cobrowse guide.

Integrating the Cobrowse Script Tag in Your Digital Customer Service Application

Before integrating Oracle Cobrowse with your Digital Customer Service application you must configure Cobrowse in Oracle Service Cloud and obtain the script tag.

To integrate the Oracle Cobrowse script tag in your Digital Customer Service application:

2. Open your Digital Customer Service application.
3. Click the Web Apps tile.
4. In the Web Apps tree, expand dcs, then root pages, and then click shell.
   The shell tab appears.
5. Click the JS (Functions) icon.
6. Search the script for the following string:

   `return PageModule;`

   Note: This line should be the second to last line in the script.
7. Paste the following code on the blank line before the `return PageModule;` line.

   `$\text{ajax}({\text{url:'<launcher.js URL>?lang=' + oj.Config.getLocale(),\text{dataType: 'script',\text{async: false }}})$;`
8. Replace the `<launcher.js URL>` in the code that you just pasted, with the src URL that you located on step 2 of the Setting Up Cobrowse task. For example:

Mapping Roles

This topic describes how to manage role mappings for Digital Customer Service.

To allow the Oracle Visual Builder Cloud Service role to match with the Oracle Engagement Cloud role you must map roles. Completing this task will help you manage user roles in the Oracle Engagement Cloud and your Digital Customer Service application similarly.

You must follow the process for mapping roles in this topic if you want to define additional roles.

Mapping a New Role

To map a new role for Digital Customer Service:

2. Open your Digital Customer Service application.
3. Click the Menu icon and select Settings.
4. Click the User Roles tab.
5. Click Add Role.
6. Enter a role name in the Role text box.
7. In the Mapping list, select the role to which to map.
8. Click the Check Mark icon to complete the mapping.
9. Click Close.

Editing an Existing Role Mapping

To edit an existing role mapping for Digital Customer Service:

2. Open your Digital Customer Service application.
3. Click the Menu icon and select Settings.
4. Click the User Roles tab.
5. Hover over the role that you want to edit in the User Roles list, then click the Pencil icon.
6. Edit the role name in the Role text box.
7. In the Mapping list, edit the role to which to map.
8. Click the Check Mark icon to complete the mapping.
9. Click Close.

Removing an Existing Role Mapping

To remove an existing role mapping for Digital Customer Service:

2. Open your Digital Customer Service application.
3. Click the Menu icon and select Settings.
4. Click the User Roles tab.
5. Hover over the role that you want to remove in the **User Roles** list, then click the **Trash Can** icon. The user role is removed.
6. Click **Close**.

Creating a Digital Customer Service Icon in Oracle Engagement Cloud

When performing certain actions in the Digital Customer Service application, users are redirected to the Oracle Engagement Cloud Dashboard. To facilitate an easier path for your users, Oracle recommends that you provide a Digital Customer Service icon within the dashboard. This topic describes how to create a Digital Customer Service icon in Oracle Engagement Cloud.

> **Note:** If you use a third-party identity management solution with Oracle Engagement Cloud, you must address the redirect issues within your deployment.

Follow the procedures in this topic in the stated order to create a Digital Customer Service icon in Oracle Engagement Cloud:

1. Create a New Sandbox
2. Create a New Card Icon for Accessing Digital Customer Service
3. Validate the Card Icon
4. Publish the Sandbox

Creating a New Sandbox

To create a new sandbox:

1. Sign in to Oracle Engagement Cloud.
2. Click the **User** menu and select **Manage Sandboxes**.
3. Click the + icon (New) to create the new sandbox.
4. Select the sandbox created in Step 3.
5. Click **Set as Active**.

Creating a New Card Icon for Accessing Digital Customer Service

To create a new card icon for accessing Digital Customer Service:

1. Sign in to Oracle Engagement Cloud.

> **Note:** Ensure that your sandbox is set as active.

2. Navigate to the **Configuration** work area and click **Structure**.
3. From the Create menu, select **Create Page Entry**.
4. Enter information for the new card:
   - **Name**: Specify DCS.
   - **Icon**: Select an icon.
   - **Category**: Select **Service**.
   - **Show on Navigator**: Select **EL Expression**, then select the **Edit** and paste the following expression:
#{{securityContext.userInRole['ORA_PER_EMPLOYEE_ABSTRACT']}}

- **Show on Springboard.** Select **EL Expression**, then select the **Edit** and paste the following expression:
  #{{securityContext.userInRole['ORA_PER_EMPLOYEE_ABSTRACT']}}

- **Link Type.** Select **Static URL**.

- **Destination.** Specify the URL for your Digital Customer Service web application.

5. Click **Save and Close**.

## Validating the Card Icon

To validate the card icon:

1. Sign in to Oracle Engagement Cloud.
2. Click the **User** menu and select **Manage Sandboxes**.
3. Select the sandbox created in the Create a New Sandbox topic.
4. Click **Set as Active**.
5. Navigate to the **Home** page.
   The **DCS** icon appears on the **Home** page and in the **Navigator**.

## Publishing the Sandbox

To publish the sandbox:

1. Sign in to Oracle Engagement Cloud as a user with the Sales Administrator job role.
2. Click the **User** menu and select **Manage Sandboxes**.
3. Select the name of the sandbox created in the Create a New Sandbox topic.
4. Click **Publish**.

### Related Topics
- Using Sandboxes: Explained

## About Application Configuration Settings

This topic describes Digital Customer Service application configuration settings.

Digital Customer Service application settings are configured in the **config.json** file within your Digital Customer Service application in Oracle Visual Builder Cloud service. This topic describes how to configure settings, followed by descriptions of the parameters.

### Modifying the Configuration Settings

This topic describes how to modify configuration settings for your Digital Customer Service application in the Oracle Visual Cloud Builder Service. The parameters that are available for configuration are described in the topics that follow.

To modify parameters in the **config.json** file:

1. Navigate to the Oracle Visual Builder Cloud Service editor.
2. Click the **Main Menu** icon in the editor, and select **Application Settings**, then **Resource Browser**.

3. In the **Resource Browser**, navigate to the **user/resources** folder, then click **config.json**.

4. Configure your parameters.

5. Click **Save Changes**.

### About Linking

This topic describes the **config.json** parameters related to Service Request and Knowledge Management article linking.

All of the parameters related to Service Request and Knowledge Management article linking are contained in the **linkedTypes** section of the **config.json** file. When you use the Digital Customer Service Reference Implementation template or the Digital Customer Service Starter template, the linkedTypes section is configured as follows:

```json
"linkedTypes": {
  "ARTICLE_LINK": { "page": "com_oracle_css_knowledgeBOP_AnswerPage" },
  "SERVICE_REQUEST_CRM": { "page": "sr_serviceRequests_serviceRequestsPage" },
  "SERVICE_REQUEST_HCM": { "page": "sr_serviceRequests_serviceRequestsPage" },
  "SERVICE_REQUEST": { "page": "sr_serviceRequests_serviceRequestsPage", "pattern": "\b(SR\d{10})\b" },
  "KNOWLEDGE_LINK": { "page": "com_oracle_css_knowledgeBOP_AnswerPage", "pattern": "\b((?:SOL|FAQ)\d+)\b", "keyProperty": "IMDocumentId" }
}
```

The **SERVICE_REQUEST** and **KNOWLEDGE_LINK** object type lines control the Service Request and Knowledge Management article linking respectively.

By default in the Digital Customer Service Reference Implementation and the Digital Customer Service Starter templates, **SR** is defined as the case-insensitive prefix that identifies Service Requests. For Knowledge Management articles, **SOL** and **FAQ** can be used interchangeably as the case-insensitive prefix that identifies articles. These prefixes are defined in the **pattern** parameter in each object type.

For example, if you want to change the prefix for Service Requests specifically to include both **SR** and Service Request as the prefix patterns, modify the **SERVICE_REQUEST** object type as follows:

```json
"SERVICE_REQUEST": { "page": "sr_serviceRequests_serviceRequestsPage", "pattern": "\b((?:SR|Service Request)\d{10})\b" }
```

By default in the Digital Customer Service Reference Implementation and the Digital Customer Service Starter templates, **sr_serviceRequests_serviceRequestsPage** is defined as the **PageID** for Service Requests, and **com_oracle_css_knowledgeBOP_AnswerPage** is defined as the **PageID** for Knowledge Management articles. These pages are defined in the **page** parameter in each object type.

For example, if you create a new page in your Digital Customer Service application, and you want to associate this newly created page with a **PageID** of **com_oracle_css_MyNewknowledgePage_AnswerPage** with Knowledge Management articles, modify the **KNOWLEDGE_LINK** object type as follows:

```json
"KNOWLEDGE_LINK": { "page": "com_oracle_css_MyNewknowledgePage_AnswerPage", "pattern": "\b((?:SOL|FAQ)\d+)\b", "keyProperty": "IMDocumentId" }
```

### Configuring Product and Category Filtering

This topic describes the **config.json** parameters related to configuring flags.

- **onlyCSSCategories** Specifies the categories to display in your Digital Customer Service application. When set to **true**, categories with the **CSSFlag** set to **false** in the REST API will not be displayed in the **Category Selector**.
- **onlyCSSProducts** Specifies the products to display in your Digital Customer Service application. When set to **TRUE**, only products with **Enable for Customer Self Service** set to **YES** will be displayed in the **Product Picker** and
Configuring Language Defaults in Knowledge Management

This topic describes the `config.json` parameters related to language defaults in Knowledge Management.

This configuration is required when more than one region is supported for the same language, because the default from the configuration file is used. Also for the API that retrieves the Knowledge Management locales, a `localeId` must be provided in the `kmauthtoken`, so that value is taken from the configuration file.

Oracle Knowledge Management supports a predetermined set of locales for knowledge searches. If the `Accept-Language` header element of the knowledge search REST request does not match one of the supported locales, an HTTP 400 error is returned. To prevent this, the locale specified in the `Accept-Language` header is overridden. This logic that determines the override locale is as follows:

1. Query the Server for all the supported locales and cache it.
2. Get the locale preference from the Oracle JET locale configuration using `oj.Config.getLocale()`;

> **Note:** Oracle JET determines the locale for locale-sensitive operations in the following order: locale specification in the RequireJS configuration, lang attribute of the HTML tag, navigator.language browser property or navigator.userLanguage Internet Explorer property.

- If the locale preference is on the supported locale list, use it.
- If the locale preference is not a supported locale, extract the language from it.

3. Search the supported locale list by language. If only one match is found, use it.
4. Search `kmLanguageDefaults` in `config.json` by language. If a match is found, use it.
5. Pick the default locale for any language not on the list and use it.

The `kmLanguageDefaults` entry in `config.json` maintains a mapping of language to locale. If an asterisk (*) is specified for language, then it will match any language not specified and map it to a locale.

For example:

```
```

Using this example, if the Oracle JET locale is set to `zh_HK` and is not on the locales supported by Knowledge Management, then the locale override will be set to `zh_CN`.

About the Interface ID for Knowledge Requests

This topic describes the `config.json` parameters related to Interface ID defaults for Knowledge Management articles.

Use the `kmInterfaceId` parameter to control what type of Knowledge Management articles appear in your Digital Customer Service application.

<table>
<thead>
<tr>
<th><code>kmInterfaceId</code> Parameter Value</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Only Oracle Engagement Cloud articles appear.</td>
</tr>
<tr>
<td>2</td>
<td>Only Oracle HCM Cloud articles appear.</td>
</tr>
</tbody>
</table>
Post-Configuration Verification Tasks

This topic describes the post-configuration verification tasks recommended after configuring your Digital Customer Service application. The tasks outlined in this topic apply only if you created your Digital Customer Service application using the Digital Customer Service Reference Implementation template.

Verifying the Knowledge Search Component

To verify the Knowledge Search component:

1. Sign in to your Digital Customer Service application as an anonymous user.
2. Enter the search text for the Knowledge Management articles that have been created.
3. Click the Search icon.
4. Verify that the search results match the search text.
5. Click the Category field to verify the list of categories are displayed.
6. Click the Product field to verify the list of products are displayed.
7. Sign out.
8. Sign in to your Digital Customer Service application as a self-registered user.
9. Enter the search text for the Knowledge Management articles that have been created.
10. Click the Search icon.
11. Verify that the search results match the search text.
12. Click the Category field to verify the list of categories are displayed.
13. Click the Product field to verify the list of products are displayed.

Verifying the Service Request Creator Component

To verify the Service Request Creator component:

1. Sign in to your Digital Customer Service application as a self-registered user.
2. Click the User menu, then select My Service Requests.
3. Click Create Service Request.
4. Enter details in the following fields:
   - Title
   - Describe the Problem
   - Category
   - Product
5. Click Submit.
6. Verify that a confirmation message appears.

<table>
<thead>
<tr>
<th>kmInterfaceId Parameter Value</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>Both Oracle Engagement Cloud and Oracle HCM Cloud articles appear.</td>
</tr>
</tbody>
</table>
Verifying the Service Request List Component

To verify the Service Request List component:

1. Sign in to your Digital Customer Service application as a self-registered user.
2. Click the User menu, then select My Service Requests.
3. Verify that the Service Requests list contains the service requests created in the Verify the Service Request Creator Component task.
4. Specify a Filter.
5. Verify that the My Service Requests list returns only SRs that contain the filter in the title.
6. Change the Sort By to Service Request Number Ascending.
7. Verify that the Service Request list is ordered by SR number, where the lowest SR number appears first in the list.

Verifying the Edit Service Request Data Component

To verify the Edit Service Request Data component:

1. Sign in to your Digital Customer Service application as a self-registered user.
2. Click the User menu, then select My Service Requests.
3. View an existing SR by clicking on it from the My Service Requests list.
4. Verify that the details of the SR that you selected are displayed as expected.
5. Add a message:
   a. In the Messages tab, enter a message in the Write a new message field.
   b. Click Submit.
   c. Verify that the message you entered is displayed in the list of messages at the end of the page.
6. Add a file attachment:
   a. Click the File Attachments tab.
   b. Drag-and-drop files into the Drop files to attach or browse box.
   c. Click the Pencil (Edit Description) icon next to an uploaded file, enter a description, then click the Check Mark (Update Description) icon.
   d. Verify that the file and its description are listed in the list of file attachments.
   e. Click the file name.
   f. Verify that the file is successfully downloaded.
7. Add a URL attachment:
   a. Click the URL Attachments tab.
   b. Enter a URL and a description.
   c. Click Submit.
   d. Verify that the URL and its description are listed in the list of URL attachments.
8. Escalate the SR:
   a. Click the Actions menu and select Escalate this request.
   b. Enter a message in the Escalate this request dialog box.
   c. Click Escalate.
   d. Verify that the SR displays an escalated indicator.
   e. Verify that the escalation message appears in the list of messages on the Messages tab.
9. Close the SR:
   a. Click the Actions menu and select Resolve this request.
b. Enter a message in the **Resolve this request** dialog box.
c. Click **Resolve**
d. Check that the SR displays a **Status** of **Resolved**.
e. Verify that the closure message appears in the list of messages on the **Messages** tab.

### Verifying the Chat Component

To verify the Chat component:

1. Sign in to your Digital Customer Service application as a self-registered user.
2. Click the **Live Chat Support** link.
3. Fill in the **Subject** field.

💡 **Note:** Some user details are prepopulated in form

4. Click **Start Chat**.
5. Verify that the chat connects, and is placed in the queue.

### Verifying Search Results with Product and Category as Search Criteria

To verify search results where both product and category are used as search criteria:

1. Sign in to your Digital Customer Service application as a self-registered user.
2. Enter your search criteria in the **Search** text box.
3. Expand the **Filter your search** option.

   The **Select category** and **Select product** fields appear.

4. Navigate the product hierarchy in the **Select product** field, then click a product.
5. Navigate the category hierarchy in the **Select category** field, then click a category.
6. Click the **Magnifying Glass** (Search) icon.

   Your search results appear.
7. Verify the results match the search criteria.
Managing Digital Customer Service Users

Managing Registration Requests

Registration requests are sent to Oracle Engagement Cloud for users intending to use Digital Customer Service features. Administrators must then determine whether the request should be approved or rejected in the Service work area. This topic explains how to accept and reject registration requests in Oracle Engagement Cloud.

Approving Registration Requests

This topic describes how to approve registration requests in Oracle Engagement Cloud.

To approve registration requests:

1. Sign in as a user with a role that includes the Customer Self-Service Administrator duty role.
2. Navigate to the Service work area and click Registration Requests.
   The Self-Service Registrations screen is displayed. By default, a list of pending self-service registrations is displayed.
3. Click the Actions list, then select Approve.
4. Select one or more pending registration requests that you want to approve.
5. Click the Approve (# Selected) button.

   Note: The number sign(#) represents the number of registration requests selected.

   The Requests to Be Approved dialog box appears.
6. (Optional) In the Reason for Approving text box, enter a reason.
7. Click the Approve button.
   A message appears, confirming the number of approved registration requests. The approved requests no longer appear in the pending list.

   Note: When a user registration request is approved, a welcome email is sent to the user with a password reset link.

Rejecting Registration Requests

This topic describes how to reject registration requests in Oracle Engagement Cloud.

To reject registration requests:

1. Sign in as a user with a role that includes the Customer Self-Service Administrator duty role.
2. Navigate to the Service work area and click Registration Requests.
   The Self-Service Registrations screen is displayed. By default, a list of pending self-service registrations is displayed.
3. Click the Actions list, then select Reject.
4. Select one or more pending registration requests.
5. Click the **Reject (# Selected)** button.

**Note:** The number sign (#) represents the number of registration requests that you have selected.

The **Requests to Be Rejected** dialog box appears.

6. In the **Reason for Rejecting** text box, enter a reason.
7. Click the **Reject** button.

A message appears, confirming the number of rejected registration requests. The rejected requests no longer appear in the pending list.

### Managing Self-Service Users

Users can be granted different roles. By default, when a registration request is approved for a user, they are granted the User role. However, administrators can grant or remove roles, depending on the users intended responsibilities.

**Note:** The first user to be approved for a customer account is automatically granted the Account Administrator role. There must always be one user with the Account Administrator role for an account.

This topic describes how to add and remove roles for self-service users in Oracle Engagement Cloud. For additional information about self-service user roles, see About Digital Customer Service Roles.

To manage self-service roles for an account:

1. Sign in as a user with the Customer Self-Service Administrator role.
2. Navigate to the **Service** work area and click **Self-Service Users**.
3. From the **Self-Service Users** list, select the user you want to modify.
4. In the **User Administration** section, select or deselect one or more of the following roles:
   - **User**
   - **Account Manager**
   - **Account Administrator**

   **Note:** Removing the User role causes the removal of all privileges. The only way to restore the privileges is to submit a new registration request. You cannot delete the User role for the last Account Administrator because each account must have at least one administrator.

5. Click **Save**.

A dialog appears, confirming the role modifications.

**Related Topics**

- About Digital Customer Service Roles
Creating Digital Customer Service User Accounts

This topic describes how to create users in the Digital Customer Service application.

Creating an Account Administrator

Each account must have at least one account administrator. You can assign the account administrator role to user accounts in your Digital Customer Service application.

To assign the account administrator role:

1. Sign in to your Digital Customer Service application as a user with the account administrator role.
2. Click the arrow next to the user icon, and select User Management. The User Management page is displayed.
3. Click the User Roles tab.
4. Search for the user to which you want to grant the account administrator role.
5. Click the name of the user to which you want to grant the account administrator role.

The Manage User Roles screen appears.

6. In the Roles section, select the Account Administrator option.
7. Click Save.

A confirmation message is displayed, and you are returned to the User Management page.

Creating an Account Manager

You can assign the account manager role to user accounts in your Digital Customer Service application.

To assign the account manager role:

1. Sign in to your Digital Customer Service application as a user with the account administrator role.
2. Click the arrow next to the user icon, and select User Management. The User Management page is displayed.
3. Click the User Roles tab.
4. Search for the user to which you want to grant the account manager role.
5. Click the name of the user to which you want to grant the account manager role.

The Manage User Roles screen appears.

6. In the Roles section, select the Account Manager option.
7. Click Save.

A confirmation message is displayed, and you are returned to the User Management page.
Securing Digital Customer Service

Adding Oracle Visual Builder Cloud Service Links for Password Reset

In your Digital Customer Service application, the My Profile component contains a Change Password link. Because the value that is required in the field is dependent on your Oracle Engagement Cloud deployment, by default the link value is empty. For this link to work for users, you must obtain the URL from your deployment of Oracle Engagement Cloud, and then specify the URL in your Digital Customer Service application. This topic describes how to obtain the URL, and then add it to your Digital Customer Service application in Oracle Visual Builder Cloud Service.

Note: The production Oracle Engagement Cloud URL and staged Oracle Engagement Cloud URL are different. Use the production Oracle Engagement Cloud URL for the tasks in this topic.

Obtaining the Change Password Link from Oracle Engagement Cloud

To obtain the Change Password link from Oracle Engagement Cloud:

1. Sign in to Oracle Engagement Cloud as a Digital Customer Service user.
2. Click the User menu and select Set Preferences.
3. Click the Password link.
   The password reset view appears.
4. In your browser, select the entire URL.
5. Copy the URL.

Specifying the Change Password Link in Your Digital Customer Service Application

To specify the Change Password link in your Digital Customer Service:

2. Open your Digital Customer Service application.
3. Click Web Apps.
4. In the Web Apps tree, expand dcs, flows, and my-profile.
5. Click my-profile-start.
   The my-profile-start tab appears.
6. In the My Profile form, click the Change hyperlink next to the Password label.
   The Hyperlink property inspector appears.
7. Click the Data tab.
8. In the URL field, paste the Change Password URL that you copied in step 5 of “Obtaining the Change Password Link from Oracle Engagement Cloud” topic.
9. Save your changes.
Localizing Digital Customer Service for Multilingual Support

This topic describes how to localize Digital Customer Service for multilingual support.

About Creating Localized Digital Customer Service Applications

You can create localized versions of your application by translating the UI text and messages in your application into other languages. The localized strings are displayed in the application during runtime. When you run the staged or published application, a localized version is displayed based on the language settings of your browser.

*Note:* A Digital Customer Service application created using the Reference Implementation template includes translations to the 22 languages supported by Oracle Engagement Cloud. While the Reference Implementation template is delivered with these translation strings and files, any modifications that you apply to the strings in your Digital Customer Service application requires additional translation.

The resource bundles provide an initial set of translated strings for the majority of the application that you can use for your own translation files. To populate the rest of the translation files for the languages you want to support, follow the instructions for generating files for new languages, and then use the existing translated files to obtain translations for use in your new file.

The Digital Customer Service Reference Implementation template comes with a single, application specific bundle. If you create new strings, you must add the translations to the bundle, or create new bundles.

For comprehensive information about adding translated text to your application, refer to the Work with Translations topic in the Develop Applications chapter of the Developing Applications with Oracle Visual Builder Cloud Service guide in the Related Topic.

Configuring Languages Available in your Digital Customer Service Application

By default, the preferred language specified in the viewing browser is used to display your Digital Customer Service application to users. In the Digital Customer Service Reference Implementation template, a languages menu can be configured to list the specific languages that you want to make available to your users, should they want to use another language.

To configure the languages available to your Digital Customer Service application users:

2. Open your Digital Customer Service application.
3. Click Web Apps.
4. In the Web Apps tree, expand dcs, then root pages, and then click shell.

   The shell tab appears.
5. Click the JS (Functions) icon.
6. Search the script for the following string:

   ```javascript
   PageModule.prototype.localeList
   ```
7. Copy the language that you want to include in the languages menu from the commented out section. Do not include the // at the beginning of the line. For example, if you want to make Italian available, copy the following string:

   ```javascript
   { code: 'it', name: 'Italiano'},
   ```
8. Paste the string that you copied in step 7 into the available languages, that are not commented out, in the `PageModule.prototype.localeList` section.

9. Click the Play icon (Run) to view the change in your application.

10. Click the Globe icon (Languages) to verify that the language that you added in step 7 appears in the list of available languages.

Creating Translations for New Languages

To introduce a new language beyond the ones delivered with a Digital Customer Service application that was created using the Reference Implementation, follow these steps:

1. Navigate to the Oracle Visual Builder Cloud Service editor.
2. Click the Main Menu icon in the editor, and select Application Settings, then Translations.

   The Translations page contains a Manage Language Bundles section and a Translations section.

   **Note:** English is not listed in the Translations list because it is considered the base language.

3. To download the latest language bundle, click the `<Digital_Customer_Service_Application_Name>Nls.zip` link in the Download current bundles section.
4. Open your `<Digital_Customer_Service_Application_Name>Nls.zip` file.
5. Extract the nls.json file.
6. Rename the nls.json file to nls-<language-locale>.json.

   **Note:** The supported default language locales are as follows: cs-CZ, da-DK, de-DE, es-ES, fi-FI, fr-CA, fr-FR, hu-HU, it-IT, ja-JP, ko-KR, nl-NL, no-NO, pl-PL, pt-BR, ro-RO, ru-RU, sv-SE, th-TH, tr-TR, zh-CN, zh-TW. You can upload any language that you choose.

   For example, for a file containing Swedish translations, the modified file name should be: `nls-sv-se.json`.

7. Open your nls-<language-locale>.json file in a text editor. The first few lines of the file will resemble the following:

   ```json
   {
   "en" : {
   "base" : {
   "collections" : {
   "viewNotAllowedTitle" : "No Records Shown.",
   "viewNotAllowedDescription" : "You need view permission to view {entityName} business object.",
   "searchRequired" : "No records shown. Search is required.",
   "searchRequiredStart" : "Please provide required",
   "searchRequiredLink" : "Advanced Search",
   "searchRequiredEnd" : "details to find records."
   },
   "businesscode" : {
   "errorWithoutCode" : "Error: {0}",
   "errorWithCode" : "Error: {0} (Code: {1})"
   },
   "componentsCharts" : {
   "invalidPieParams" : "Chart slice values or colors are not specified.",
   "invalidBubbleParams" : "Bubble chart values for x or y axes or bubble size are not specified.",
   "invalidBarParams" : "Chart values or categories are not specified.",
   "propertyNotOnEntity" : "The field '{0}' referenced by a chart is not present on entity '{1}'.",
   "invalidEntity" : "The entity with id '{0}' does not exist.",
   "invalidChart" : "Invalid chart configuration.",
   "notAllRowsReturned" : "Only the first {0} rows from the query will be displayed in the chart titled '{1}'"
   }
   }
   }
   ```
8. Replace the "en" on the first line of the file to the language identifier of your choice. For example, you would enter "sv-SE" for a translation file containing Swedish translations.

9. Identify the strings that require translation by searching for the following string:

```
: 
```

10. Replace the English strings with the translation for the language you are creating. Consider the search reveals the following `pages` string:

```
"pages" : {
  "All_Registrations" : {
    "button--560333972" : {
      "displayName" : "Create"
    }
  }
}
```

You would want to replace the string after the `:` with the translated language equivalent. In this example, you would want to replace the string `Create` with the Swedish equivalent for Create. The modified text will look similar to the following:

```
"pages" : {
  "All_Registrations" : {
    "button--560333972" : {
      "displayName" : "Skapa"
    }
  }
}
```

11. Repeat steps 9 and 10 for all the strings in the language that you are creating.


13. Create a new compressed file containing only the nls-<language-locale>.json file.


15. Click the Main Menu icon in the editor, and select Application Settings, then Translations.

16. Upload the compressed file containing your new nls-<language-locale>.json file to the Uploaded updated bundle section.

After the bundle is imported, the list of languages in the Translations section is updated. A Version # appears next to any language you upload. This can be a new language in a new file, or an update to an existing language in a previously existing file.

### Adding New String Translations for Existing Languages

If you want to translate additional strings after modifying strings in your Digital Customer Service application generated from the Reference Implementation template, the nls-changes-<lang>-<LOCALE>.json file contains all the new or modified strings in English. Each language has its own nls-changes-<lang>-<LOCALE>.json file. For example, the file for French language strings requiring translation are found in the nls-changes-fr-FR.json file.

To add new string translations for existing languages:

1. Navigate to the Oracle Visual Builder Cloud Service editor.

2. Click the Main Menu icon in the editor, and select Application Settings, then Translations.

   The Translations page contains a Manage Language Bundles section and a Translations section.

3. To download the latest language bundle, click the <Digital_Customer_Service_Application_Name>Nls.zip link in the Download current bundles section.

4. Open your `<Digital_Customer_Service_Application_Name>Nls.zip file.

5. Extract the file following file:

   nls-changes-<lang>-<LOCALE>.json
Where <lang> is the abbreviation of the language of the language that requires language-related string translations.

6. Identify the strings that require translation by searching for the following string:

    ####

7. Replace the English strings with the translation for the language you are creating. Consider the search reveals the following pages string:

    "pages" : {
        "All_Registrations" : {
            "button--560333972" : {
                "displayName" : "####Name####"
            }
        }
    }

You want to replace the string, including the two sets of #### between the string, with the translated language equivalent. For example, if you were translating a French string, you would want to replace the string ####Name#### with the French equivalent for Name. The modified text will look similar to the following:

    "pages" : {
        "All_Registrations" : {
            "button--560333972" : {
                "displayName" : "Nom"
            }
        }
    }

8. Repeat steps 6 and 7 for all the strings in the language that you are updating.


10. Create a new compressed zip file containing only the nls-changes-<lang>-<LOCALE>.json file.


12. Click the Main Menu icon in the editor, and select Application Settings, then Translations.

13. Upload the compressed file containing your new nls-changes-<lang>-<LOCALE>.json file to the Uploaded updated bundle section.

After the bundle is imported the new and modified strings will appear as translated in the destination language.

For more information about updating translation files with new translated text for your application, refer to the Configuring Application Settings topic in the Developing Web Applications chapter in the Using Oracle Visual Builder Cloud Service Related Topic.

Related Topics

- Developing Applications with Oracle Visual Builder Cloud Service
7 Implementing Digital Customer Service Advanced Features

Overview of Digital Customer Service Advanced Features

This topic provides a general overview of Digital Customer Service from a developer perspective.

The Oracle Digital Customer Service reference implementation is an application built with the Oracle Visual Builder Cloud Service Visual Applications platform. It’s preconfigured with pages, styling, and functionality supporting a typical self-service experience. The Visual designer enables developers to make changes and implement the look-and-feel of a brand.

As with any development framework, there can be restrictions when using ready-to-use components and capabilities. While Oracle Visual Builder Cloud Service is flexible and code can be written to accommodate many use cases, it’s recommended to use the packaged components as a first fulfillment of your requirements. If those components don’t meet your requirements, then you may extend the capabilities.

*Note:* If you have modified your Digital Customer Service deployment, you must devise a product life cycle strategy to manage your own code migration and merges as well as uptake any environment changes.

Applying Themes to your Digital Customer Service Application

This topic describes how to apply themes to your own Digital Customer Service application.

Oracle JET includes themes that provide styling across a web or hybrid mobile application. You can use these themes as provided, or you can configure them manually and through the tooling.

For more information about applying themes to your Digital Customer Service application, refer to the chapter related to applying themes in the Developing Applications with Oracle JET guide, in the Related Topics.

Related Topics

- Using Oracle Visual Builder Cloud Service
- Developing Applications with Oracle JET
Changing the Appearance of your Digital Customer Service Application

This topic describes how to change the appearance of your own Digital Customer Service application.

The Oracle Digital Customer Service Reference Implementation template has been styled to enhance its appearance. This has been done by modifying objects and adding styles to the `app.css` file.

To modify objects in the `app.css` file:

1. Navigate to the Oracle Visual Builder Cloud Service.
2. Open your Digital Customer Service application.
3. Click Web Apps.
4. Expand `dcs`, expand `resources`, expand `css`, then click `app.css`.

   The `app.css` tab appears.

5. Locate and configure the object that you want to modify. For example, to set the header of the Reference Implementation template to a transparent black, modify the `odcs-header` CSS class selector:

   ```css
   .odcs-header {
     background-color: rgba(0, 0, 0, 0.7);
     height: 58px;
   }
   ```

   CSS Classes defined in `app.css` can then be referenced in the HTML of the application. For example we have this code in `pages/shell-page.html`:

   ```html
   <header role="banner" id="header" class="odcs-header oj-web-applayout-header">
   ```

   You can also use Oracle JET themes to provide consistent appearance of components across your Digital Customer Service application. For more information about Oracle JET themes refer to the Theme Applications chapter in the Developing Applications with Oracle JET guide, in the Related Topics below.

Once an Oracle JET theme is created it can be added uploaded to `resources/css` and then referenced in the `index.html` of the application with code like this:

```html
<link type="text/css" rel="stylesheet" href="resources/css/app.css">
<link type="text/css" rel="stylesheet" href="resources/css/myJETTheme.css">
```

Related Topics

- Developing Applications with Oracle JET

Using a Standard Business Object: Worked Example

This topic is an example of how to configure and use a standard Oracle Engagement Cloud business object for customer self-service product registration.
Worked Example Overview

This example provides an introduction to using business objects, APIs, data security, and mapping services within Oracle Visual Builder Cloud Service. This worked example is not intended to be a complete implementation and configuration, but rather acts as a quick introduction with general guidance. You must address more granular data security for each user in a production implementation. Additional role-based security might be required.

In this worked example, the following tasks will be described:

- Configuring Security to Enable Access and Data Access to the Asset REST API
- Testing Access to the API
- Mapping Oracle Visual Builder Cloud Service to the API
- Creating an Oracle Visual Builder Cloud Service Launch Page

Configuring Security to Enable Access and Data Access to the Asset REST API

In this topic, you will open the API.

> Note: In a production implementation, additional configuration is required, such as granular data security for each use and additional role-based security depending on your requirements.

For more information about REST APIs refer to REST API for Oracle Sales Cloud R13, in the Related Topics.

You must access Oracle Engagement Cloud using an account with access to the Security Console. You will go into the security console and perform the following:

1. Sign-in to Oracle Engagement Cloud.
3. Select the Users tab.
4. Lookup and select a user with the administrator role.

This user will become the account that you will use for the REST API authentication. You must configure or update an existing role and then assign a user to that role.

5. Click Edit.
6. Click Add Role.
7. Search for, and add following role memberships:
   - View Asset - ZCM_VIEW_ASSETS_PRIV
   - Create Asset - ZCM_CREATE_ASSET_PRIV
   - Edit Asset - ZCM_EDIT_ASSET_PRIV
   - Delete Asset - ZCM_DELETE_ASSET_PRIV

8. Click Save and Close.

Use this account for REST API authentication.
Testing Access to the Asset REST API

In this part of the example you will use a third-party software tool to test access to the Access REST API that you configured in the previous topic. The example uses Postman, a free third-party software desktop tool. You can use an API testing tool of your choice.

Before testing the Asset REST API, you must know the following:

- **Your API domain.** If you are unsure of your API domain, contact your administrator. Your API domain will look similar to the following:
  
  https://domain.com/

- **The describe URL for your REST API endpoint.** It will look similar to the following:

  https://domain.com/crmRestApi/resources/latest/assets/describe

To test access to your Asset REST API in Postman:

1. In the **Get** field, enter the full describe URL for your REST API endpoint.
2. Select Basic Auth from the **Type** menu.
3. In the **User name** field, enter the user you configured to access the Asset REST API.
4. In the **Password** field, enter the password of the user you configured to access the Asset REST API.
5. Click **Send**.

If you get an error or no data in the response, verify that you entered the proper describe URL, user, and password, then try again. If the problem persists, contact your administrator. Your Access REST API must respond to this test with a 200 response and a data return before continuing to the next task.

Mapping Oracle Visual Builder Cloud Service to the API

Within the Oracle Visual Builder Cloud Service designer perform the following.

1. Navigate to your Oracle Visual Builder Cloud Service.
2. Open your Digital Customer Service application.
3. Click **Service Connections**.
4. Click the + icon (Create Service Connection).

   The **Create Service Connection** page appears.
5. Click Define by Specification, then configure the following details:
   a. In the **API Type** menu, select **Swagger**.
   b. For the **Service Specification**:
      - Click the **Web Address** option.
      - Enter the REST API URL in the text box.
   c. In the **Service Id** text box, enter the a unique Service ID.
   d. In the **Authentication Method** menu, select an option.
6. Click **Next**.
7. Select the **Asset** business object.
8. Map the following fields:
**Note:** Oracle recommends that you select only the fields that will be used for this connection. This helps to facilitate faster response times.

- **Item ID**
- **Item Description**
- **Serial Number**
- **Purchase Date**

9. Test the connection.

If you have completed all of the previous steps correctly, you will receive a data return. If not, before proceeding, revisit the previous steps and correct any errors until you receive a data return.

10. Click **Finish**.

### Creating an Oracle Visual Builder Cloud Service Launch Page

Follow these steps to create a simple and functioning launch page using the data that was mapped from the Asset REST API in the previous tasks.

1. Navigate to your Oracle Visual Builder Cloud Service.
2. Open your Digital Customer Service application.
3. Click **Web Applications**.
4. Expand `dcs`, then `flows`.
5. Next to the flow in which you want to create the launch page, click the + icon (Create Page).

The **Create Page** dialog appears.

6. Specify an ID in the **Id** text box.
7. Click **Create**.
8. From the **Components** region, expand the **Collection** set, and drag a **Table** component, and drop it in the **Page Structure** region.
9. In the property inspector for the table, click **Add Data**.

The **Add Data** dialog appears.

10. Click the endpoint that you created in the Mapping Oracle Visual Builder Cloud Service to the API topic.
11. Choose your columns.
12. Define any additional queries.
13. Click **Finish**.

A preview of your landing page is displayed.

**Related Topics**

- Using Oracle Visual Builder Cloud Service
- REST API for Oracle Sales Cloud R13
Life Cycle Management

Determining Extension Versions

Digital Customer Service provides reusable components to your application through extensions delivered in a Component Application. These extensions may be updated periodically to provide bug fixes or additional features.

This topic describes how to determine your Digital Customer Service application extension version in Oracle Visual Builder Cloud Service.

To determine your Digital Customer Service application extension version:

1. Navigate to the Oracle Visual Builder Cloud Service editor.
2. Click the Main Menu icon in the editor, and select Application Settings, then Extensions.
3. Select an extension from the Extensions list.
4. In the extension Overview tab, next to the Display Name, text similar to the following is displayed:

   This Custom UI Component is owned and maintained in Application
   Digital_Customer_Service_Components-1.1.0

The numbered suffix represents the version of your Digital Customer Service application extension. In this case, the version is 1.1.0.
9 Managing Digital Customer Service Components

Overview of Digital Customer Service Components

This topic describes the Digital Customer Service components that are available when configuring your application in the Oracle Visual Builder Cloud Service.

Product and Category Components

The following table describes components specific to products and categories.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Selector</td>
<td>Enables users to select a category, for example to filter the search results. This component works in conjunction with Knowledge Search, Chat, Create Service Request and Edit Service Request.</td>
</tr>
<tr>
<td>Product Selector</td>
<td>Enables users to select a product, for example to filter the search results. This component works in conjunction with the Knowledge Search, Chat, Create Service Request and Edit Service Request.</td>
</tr>
</tbody>
</table>

Contact Methods Components

The following table describes components specific to contact methods. It also lists the restrictions associated with the component and any additional configuration required.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chat</td>
<td>Enables users to initiate a chat request and exchange messages with an agent.</td>
</tr>
</tbody>
</table>

Service Requests Components

The following table describes components specific to Service Requests. It also lists the restrictions associated with the component and any additional configuration required.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Download Attachment</td>
<td>Enables the Service Request Attachment List to support downloading of the listed attachments.</td>
</tr>
<tr>
<td>Linked Text</td>
<td>Replaces a text field with references to service requests with links to the details page for the service request, and creates links to Knowledge Management articles.</td>
</tr>
<tr>
<td>Component Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Service Request List</td>
<td>Displays a list of service requests to the account user in a preconfigured Oracle Visual Builder Cloud Service list view. The presentation of a row can be edited.</td>
</tr>
<tr>
<td>Service Request Message Creator</td>
<td>Provides functionality to allow new messages to be added to a service request.</td>
</tr>
<tr>
<td>Service Request Message List</td>
<td>Displays the messages that are associated with a service request.</td>
</tr>
<tr>
<td>Service Request Attachment List</td>
<td>Displays the file attachments for service requests and allows new file attachments to be uploaded.</td>
</tr>
<tr>
<td>Sign In</td>
<td>Enables users to sign in.</td>
</tr>
<tr>
<td>Sign Out</td>
<td>Enables users to sign out.</td>
</tr>
</tbody>
</table>

Viewing Additional Information About Components

You can find more information about component attributes directly in Oracle Visual Builder Cloud Service.

To view more information about a specific component:

1. Navigate to the Oracle Visual Builder Cloud Service.
2. Open your Digital Customer Service application.
3. Click **Web Apps**.
4. Expand `dcs`, then expand `flows`.
5. Select a page where the component appears.
6. In the **Page Structure** panel, click the component.
7. Click the **Design** tab in the `<Component> Selector` inspector.
8. All of the attributes specific to the selected component appear in the `<Component> Selector` section of the inspector, in the **All** tab.
9. Hover over the name of the attribute, then hover over the question mark icon to reveal one or more of the following fields relating to the attribute:
   - **Type**
   - **Value**
   - **Default Value**
   - **Description**

**Related Topics**

- About Digital Customer Service Roles
Configuring Product Selector Component

This topic describes how to configure the Product Selector component in your Digital Customer Service application.

Configuring the selectable Option for the Product Selector Component

The selectable option allows you to choose which type of Product or Product Groups can be selected in the Product Selector component. The options available are Products, Groups, or Both.

To configure the selectable option for the Product Selector component:

1. Navigate to the Oracle Visual Builder Cloud Service.
2. Open your Digital Customer Service application.
3. Click Web Apps.
4. Expand dcs, then expand flows.
5. Select the page where you want to modify the Product Selector component.
6. In the Page Structure panel, click Product Selector.
7. Click the Design tab in the Product Selector inspector.
8. On the Product Selector inspector, select one of the following options from the selectable list:
   - **Both.** Allows the filter to be switched between Products and Product Groups when using the Filter functionality of the selector.
   - **Products.** Allows users to select from products.
   - **Groups.** Allows users to select from product groups.