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CLOUD**

December 2017

Integrating Oracle Commerce
Cloud and Oracle CPQ Cloud

Integrating Oracle Commerce Cloud and Oracle CPQ Cloud

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1 Introduction

This document is intended to provide instructions on how to implement the integration between Oracle Commerce Cloud and Oracle CPQ Cloud.

Oracle Commerce Cloud is an eCommerce solution designed specifically to run in the Oracle Cloud. The service provides you with a range of powerful tools to build a flexible, feature-rich storefront for your customers.

Activities you can perform with Oracle Commerce Cloud include the following:

- Customize the design and layout of your storefront pages and preview your changes
- Display your store content in different languages
- Create or import catalog items
- Manage inventory
- Offer promotions
- Manage shopper accounts
- Allow shoppers to set up wish lists
- View reports about your store
- Test the visual elements of your store to determine which design shoppers prefer
- Develop custom features for your store through the Oracle Commerce Cloud web services API

Oracle CPQ Cloud is the only cloud solution to support the complete quote-to-cash process - from customer inquiry to order fulfillment. It guides users to optimal product options and configurations from simple to complex, automatically applying discounts and relevant up-sell and cross-sell opportunities.

Integrating these solutions brings together the capabilities of Oracle Commerce Cloud and Oracle CPQ Cloud to provide a unified solution that enables businesses to offer customers a method of interacting meaningfully with the business during the purchasing process, and to provide agents with the means to be flexible with customers, improving their contact experience and maximizing customer satisfaction.

Objective

The integration of Oracle Commerce Cloud and Oracle CPQ Cloud targets support for the following customer commerce activity:

- **Product configuration:** The customer or agent can configure any product that has been identified as configurable in the product catalog.
- **Customer quote request:** The customer can request a quote for an order.
- **Agent quote request:** An agent dealing with a customer contact can request a quote for a discount on behalf of the customer.

This document provides instructions on how to set up an integration between Oracle Commerce Cloud and Oracle CPQ Cloud so that relevant Commerce Cloud information is automatically passed to CPQ Cloud, ensuring that the decision process has all the required information and increasing the speed at which a reply is delivered to the customer or agent.

This document describes the setup tasks that must be performed in Oracle Commerce Cloud and Oracle Integration Cloud in order to use this integration flow. There are additional setup tasks that must be performed in Oracle CPQ Cloud so that the integration works as expected. Full information about these tasks that must be performed in CPQ Cloud can be found in the [Integrating Oracle Commerce Cloud and CPQ Cloud](#) article on My Oracle Support.

Chapter 2 – [Configuring the Integration \(page 5\)](#) – provides technical instructions on the following topics:

- How to download the Integration Cloud Service Integration Flows.
- How to configure the Integration Cloud Service Integration Flows.
- How to setup the connection to Oracle CPQ Cloud.
- How to setup the connection to Oracle Commerce Cloud.
- How to configure the webhooks to trigger the integration flows.

Chapter 3 – [Using the Integration Functionality \(page 13\)](#) – provides instructions on how to use the functionality supported by this integration.

Audience

This document is written for Oracle Commerce Cloud and Oracle CPQ Cloud administrators who need to set up and configure the integration between these two systems. Readers of this document should have experience with Oracle Commerce Cloud, Oracle CPQ Cloud and Oracle Integration Cloud Service administration. This document does not provide instructions on configuring aspects other than the integration for Oracle Commerce Cloud and Oracle CPQ Cloud.

Prerequisites

For the purposes of this document, it is assumed that you already have:

- An Oracle Commerce Cloud account and access to the Oracle Commerce Cloud October 2017 Update or later.
- An Oracle CPQ Cloud account and access to Oracle CPQ Cloud 2017 R2 or later.

- An Oracle Integration Cloud Service account and access to Oracle Integration Cloud Service 17.4.1 or later.
- A synchronized product catalog to ensure that products in the Commerce Cloud catalog map to corresponding items in the CPQ Cloud catalog.

If you do not have one or more of these, please contact an Oracle sales representative for information on how to acquire one: <http://www.oracle.com/us/corporate/contact/index.html>.

Additional Resources

If you require further information regarding Oracle Commerce Cloud, you can access the latest product documentation and training videos through the [Oracle Help Center page](#) for Oracle Commerce Cloud.

If you require further information regarding oracle CPQ Cloud, you can access the latest product documentation through the [Oracle Help Centre page](#) for Oracle CPQ Cloud.

Both of these pages contain links to blogs, developer communities, and Support. (Please note that some of these resources require an account for access.)

2 Configuring the Integration

There are five stages to configuring the integration that are covered in this chapter. These are:

1. [Configure the Integration Package \(page 5\)](#): This covers how to download and import the integration flows.
2. [Configure the Oracle Commerce Cloud Connection \(page 7\)](#): This covers how to configure and test the connection between the integration flows and Oracle Commerce Cloud.
3. [Activate the Integrations \(page 8\)](#): This covers how to activate the integrations within Integration Cloud Service once all of the connections have been configured.
4. [Configure the Commerce Cloud Webhooks \(page 8\)](#): This covers how to configure the webhooks that trigger the integration flows.
5. [Enable the Integrations \(page 10\)](#): This covers how to enable the integrations within Oracle Commerce Cloud.

Configure the Integration Package

This section provides detail about where the integration package can be downloaded and how to import the integration package.

Importing the integration package in Oracle Integration Cloud Service creates connections to Oracle Commerce Cloud and Oracle CPQ Cloud in ICS. It also creates an integration between Commerce Cloud and CPQ Cloud with some default mappings in place.

Download the integration package

Follow these steps to download the integration package:

1. Go to the [Integrating Oracle Commerce Cloud and CPQ Cloud](#) article on My Oracle Support.
2. If you want to implement the integration between Commerce Cloud and the CPQ Cloud Configurator, download **OCCS-CPQ_CONFIGURATION_INTEGRATION_2.0.par** to a location where it is accessible from ICS.
3. If you want to implement the integration between Commerce Cloud and CPQ Cloud Quoting, download **OCCS-CPQ_QUOTE_INTEGRATION_2.0.par** to a location that is accessible from ICS.

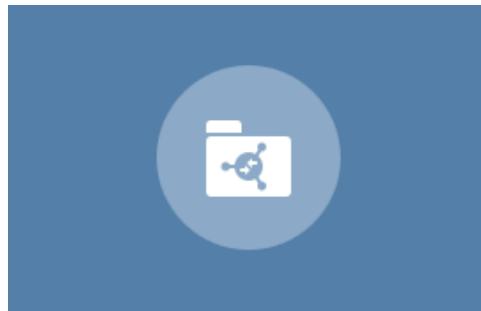
4. If you want to enable Asset Based Ordering (ABO) through the integration between Commerce Cloud and CPQ Cloud, download **OCCS_CPQ_ASSET_INTEGRATION_2.0.par** to a location that is accessible from ICS.

Import the integration package

Import the ICS Integration Package into ICS to create an integration between Commerce Cloud and CPQ Cloud in ICS.

To import the ICS Integration Package:

1. Log on to ICS as an admin user.
2. Click the Packages icon.



Packages Icon

3. Click the Import button.
4. Click Browse to open a navigation pane.
5. Browse for and select the packages archive (PAR) file when prompted.
6. Click Import. The package should be added to the Packages list.

The OCCS-CPQ_Quote_Integration package includes the following three integration flows: *OCCS-CPQ Create Quote*, *OCCS-CPQ Update Quote*, and *OCCS-CPQ Sync Quote*.

The *OCCS-CPQ Create Quote* integration sends quote request information to CPQ Cloud.

The *OCCS-CPQ Sync Quote* integration allows CPQ Cloud to send information to Commerce Cloud at the end of the quoting process and synchronize this information in Commerce Cloud. This ensures that the order information in Commerce Cloud matches the related order information in CPQ Cloud.

The *OCCS-CPQ Update Quote* integration sends information to CPQ Cloud related to accepting, rejecting, or re-requesting a quote.

The *OCCS-CPQ_Configuration_Integration* package includes the *OCCS-CPQ Get Configurations* integration flow. This integration is required for the configuration flow and is available to import into ICS. The name of the target connection for this integration is "Oracle CPQ". The target connection identifier is "Oracle_CPQ", and the target connection description is "Oracle CPQ ICS Adapter Connection".

The *OCCS_CPQ_ASSET_INTEGRATION* package includes the *OCCS_CPQ_ASSET_ACTIONS* integration flow. This integration is required for Asset Based ordering and enables Commerce Cloud to pass all the required information to CPQ Cloud to perform actions on assets associated with a shopper's account.

Configure the Oracle Commerce Cloud Connection

An administrator must complete the following steps to configure the connection from the ICS integrations to Commerce Cloud.

1. Log on to ICS as an admin user.
2. Click the Connections icon.



Connections icon

3. Click the Oracle Commerce Cloud connection.
4. Click the Configure Connectivity button.
5. Enter the Connection base URL. The Connection base URL is derived using the following structure where <siteURL> is the base URL and port number of the Oracle Commerce Cloud site that integrates with ICS.

Connection base URL: `https://<siteURL>/ccadmin/v1`

1. Click the Configure Security button.
2. The Oracle Commerce Cloud connection uses the OAuth security policy, so you must enter a Security token for the connection. This token is generated in Oracle Commerce Cloud. Instructions on generating the token can be found in the [Generate a Security Token \(page 7\)](#) section of this document.
3. Click OK.
4. Click Test to test that the connection is working.
5. Click Save.

Your Oracle Commerce Cloud connection is now configured for the integration.

Generate a Security Token

This integration uses the Oracle Commerce Cloud REST web services APIs to access Oracle Commerce Cloud data. You must register the integration within Oracle Commerce Cloud and generate a security token in order for the integration to be granted access to the data.

Follow these instructions in order to generate a security token:

1. Log onto Oracle Commerce Cloud.
2. Click the Menu icon.
3. Select Settings from the menu.

4. Click Web APIs from the sidebar menu on the Settings page
5. Click Registered Applications from the Web APIs panel.
6. Click the Register Application button.
7. Enter a name for the integration. The application you are registering is ICS, so you should choose a meaningful name that reflects this.
8. Click Save.

The Application ID and Application Key are automatically generated and the application is added to the Registered Applications page.

9. Click on the name of the application you created.
10. Click on Click to reveal to display the application key. You can copy the application key to use as the security token for the Oracle Commerce Cloud connection.

For more information on managing an application within Oracle Commerce Cloud, please refer to the Register Applications section of the Using Oracle Commerce Cloud document.

Activate the Integrations

Once the CPQ Cloud, Commerce Cloud, Oracle CPQ Quote, Oracle CPQ Configure, and Oracle CPQ getConfigurations connections are configured, the administrator must activate these integrations.

Follow these instructions to activate the ICS integrations:

1. Log on to ICS as an admin user.
2. Click on the Integrations icon to display the Integrations list.
3. Click on the Activate button for the integration you wish to activate.
4. Decide whether you want to switch on detailed tracing, which collects information about messages processed by the integration flow. Administrators may find detailed tracing helpful when troubleshooting issues with the integration flow, but it may impact performance.

To switch on detailed tracing, select the Enable detailed tracing check box.

Note: Once an integration flow is active, administrators must deactivate it and activate it again to switch detailed tracing on or off.

5. Click Activate.

Configure the Commerce Cloud Webhooks

The REST API generated by activating the ICS integration can be configured as a Webhook in Commerce Cloud Administration.

- **Request Quote:** This webhook is triggered when a request or re-request for a quote is submitted by a Commerce Cloud self-service user. This webhook pushes notifications using the *OCCS-CPQ Create Quote* integration flow.
- **Update Quote:** This webhook is triggered when a response to a requested quote is accepted, rejected, or the quote is cancelled by a Commerce Cloud self-service user. This webhook pushes notifications using the *OCCS-CPQ Update Quote* integration flow.
- **External Pricing:** This webhook is triggered at checkout when the order contains one or more items configured by CPQ Cloud. The webhook validates the configuration and price provided for the configured items.

You must configure the *Production* and *Preview* version of these webhooks to ensure that they work in all environments. The Production webhooks send information from your live store to production environments of your live systems, while preview webhooks send information from your preview environment to the test or sandbox environments of your external systems.

You can configure these webhooks through Oracle Commerce Cloud. Follow these instructions to configure a webhook:

1. Log on to ICS as an admin user.
2. Click on the Integrations icon.
3. Click on the Integration Details icon to display information about the integration flow.



Integration Details icon

If you are configuring the *Request Quote* webhook then you should display information for the *OCCS-CPQ Create Quote* integration flow.

If you are configuring the *Update Quote* webhook then you should display information for the *OCCS-CPQ Update Quote* integration flow.

If you are configuring the *External Pricing* webhook then you should display information for the *OCCS-CPQ External Pricing* integration flow.

4. Copy the Endpoint URL for the integration.
5. Log on to Commerce Cloud.
6. Click on the Menu icon.
7. Select Settings from the menu.
8. Select Web APIs from the sidebar menu on the Settings page.
9. Click on the webhook you wish to configure.
10. Paste the Endpoint URL you copied into the URL field for the webhook.
11. Remove the “metadata” text from the end of the URL.
12. Enter the Username and Password for your ICS account.
13. Click the Save button.

The webhook is now configured and is triggered each time the relevant event occurs, which in turn triggers the relevant integration flow.

If you are using a multisite environment you must also configure the webhooks for each site that uses this integration. You can change between sites by clicking on the site name above the side menu when you open the Settings page.

For more information on oracle Commerce Cloud webhooks, please refer to the Configure Webhooks chapter of the Using Oracle Commerce Cloud document.

Enable the Integrations

Administrators must complete the procedures in this section to enable the CPQ Cloud Configurator integration and the CPQ Cloud Request For Quote integration in Commerce Cloud.

For additional information about these integrations, refer to [Appendix A: Configurator Flow \(page 21\)](#) and [Appendix B: Request for Quote Flow \(page 23\)](#).

Enable CPQ Cloud Configuration Integration

Follow these steps to enable the CPQ Configuration Integration within Oracle Commerce Cloud:

1. Log on to Commerce Cloud.
2. Click on the menu icon.
3. Select Settings from the menu.
4. Select Oracle Integrations from the sidebar menu.
5. Select CPQ Configuration from the dropdown menu.
6. Check the Enable Integration checkbox.
7. Enter the Configuration URL.
8. Enter the Reconfiguration URL.

Note: You must enter these values for your production and preview environments.

9. Click the Save button.

If you are using multiple sites you must follow these instructions for each site that you operate.

Identify Configurable Products in the Product Catalog

Before a Commerce Cloud self-service user can use the CPQ Cloud configurator to configure complex products for purchase in Commerce Cloud, an administrator must identify the products as configurable in the product catalog. Before doing so, it is important to have a synchronized product catalog to ensure that products in the Commerce Cloud catalog map to corresponding items in the CPQ Cloud catalog.

To identify a product as configurable:

1. Log in to Commerce Cloud.
2. Click on the menu icon.
3. Select Catalog from the menu.
4. Select the product you wish to identify as configurable.
5. Click on the SKUs tab of the product detail pop-up frame.
6. Select the SKU you wish to identify as configurable.
7. Check the Configurable checkbox. This displays 3 further fields you must complete.
8. Enter the Model information. This should match the Model information of a configurable product in the CPQ Cloud catalog.
9. Enter the Product Line information. This should match the Product Line information of a configurable product in the CPQ Cloud catalog.
10. Enter the Product Family information. This should match the Product Family information of a configurable product in the CPQ Cloud catalog.
11. Click Save. This returns you to the SKU frame where the SKU you updated should be marked with an asterisk to identify it as a configurable SKU.

Note: Administrators can also perform the above setup steps in bulk by using the SKU import program. From the Catalog tab in Commerce Cloud, click Manage Catalog and select Import. In the Import dialog, click Browse and locate the CSV file to import. Click Upload File, click Validate, and then click Import.

Add Customize button to the Product Details Widget

Administrators must add a Customize button to the Product Details widget, so the button is visible to Commerce Cloud self-service users from the Product Details page for a customizable product.

To add a Customize button to the Product Details widget:

1. Log in to Commerce Cloud.
2. Click on the menu icon.
3. Select Design from the menu.
4. Select Product Layout from the layout list.
5. Delete the Product Details widget from the layout.
6. Place a new product details widget on the layout.
7. Click the Settings icon for the new Product Details widget.
8. From the Element Library, place a Customize button on the new Product Details widget.
9. Publish the changes.

Enable CPQ Quoting Integration

Follow these steps to enable the CPQ Quoting Integration within Oracle Commerce Cloud:

1. Log on to Commerce Cloud.
2. Click the menu icon.
3. Select Settings from the menu.
4. Select Oracle Integrations from the sidebar menu on the Settings page.
5. Select CPQ Quoting from the dropdown box.
6. Check the *Enable Integration* checkbox.

Add Quote Buttons to the Checkout and Order Details Pages

To make the CPQ Cloud quoting capability available to Commerce Cloud self-service users, administrators must add the *Request Quote* widget to the Checkout layout and the *Quote Details* widget to the Order Details layout.

The Request Quote widget adds a Quote Notes text box and a Request Quote button to the Checkout layout.

The Quote Details widget adds a Quote Notes text box populated with any notes associated with the order to the Order Detail layout. The widget also adds a Reject Quote, Request Re-Quote, and Accept Quote buttons to the Order Detail layout.

The Quote Details and Request Quote widgets do not display on the layouts by default. The administrator must first make the widgets available and then place them on the Checkout and Order Detail pages.

To add quote buttons to the Checkout and Order Details pages:

1. Log in to Commerce Cloud.
2. Click the menu icon.
3. Select Design from the menu.
4. Select the Components tab on the Design page.
5. Click the Show Hidden button.
6. Click the Unhide icon for the Quote Details Widget and the Request Quote Widget.
7. Within the Design page, select the Layouts tab.
8. From the layout list, select Checkout Layout.
9. Drag and drop the Request Quote widget from the Components menu to the desired location on the Checkout layout.
10. From the layout list, select Order Details.
11. Drag and drop the Quote Details widget from the Components menu to the desired location on the Order Details layout.
12. Publish the changes.

3 Using the Integration Functionality

This chapter provides instruction on using the functionality in Oracle Commerce Cloud that is supported by the integration with Oracle CPQ Cloud.

The functionality covered by this chapter includes:

- [Configure an item \(page 13\)](#): This is when an agent or customer uses the Configure button on the product details page of a product that has been identified as configurable.
- [Request a Quote \(page 14\)](#): This is when an agent uses the Request Quote functionality in the Commerce Cloud Agent Console on behalf of a customer, or an agent or a customer uses the Request Quote functionality on Storefront.

Configure an item

Items that have been marked as configurable in your catalog may be configured either by an agent via the Commerce Cloud Agent Console, or by a customer via the Commerce Cloud Storefront. This section provides instructions for both methods of configuring an item.

Configure an Item by an Agent

These instructions detail how an agent can configure an item via the Agent Console.

1. Log onto Commerce Cloud.
2. Using Agent Console, search for the customer for whom you wish to create a new order.
3. Click New to create a new order.
4. Select a configurable product from the catalog.
5. Click on the Configure button to open the CPQ iFrame.

Note: The CPQ iFrame is optimized for desktop, laptop, or tablet-size devices and is not recommended for mobile devices. If you need to display on mobile devices, please contact your CPQ Implementation team and enquire about the CPQ Mobile Layout.

6. Select the configuration options required for the order.
7. Click Add to Cart.

Once the configured item has been added to the cart, the agent can complete the order by going through the normal checkout process.

There is a validation check before the order is processed to ensure that the configuration options selected are valid. If they are valid, the order process completes and the order is placed. If they are not valid, an error message is displayed to the agent telling them that the configuration is invalid and that the order cannot be placed.

Configure an Item by a Customer

These instructions detail how a customer can configure an item via Commerce Cloud Storefront.

1. Customer selects a configurable item from the product catalog.
2. Customer clicks on the Customize button which opens the CPQ iFrame.
3. Customer selects their desired configuration options for the item.
4. Customer adds customized item to their cart.
5. Customer goes to checkout and provides shipping and payment details.

There is a validation before the order is processed to ensure that the configuration options selected are valid. If they are valid, the order process completes and the order is placed. If they are not valid, an error message is displayed to the customer telling them that the configuration is invalid and that the order cannot be placed. The customer is then unable to place the order until the configuration options have been changed and the configured item passes the validation check.

Request a Quote

Quotes may be requested for one or more items on an order either by an agent from within the Agent Console, or by a customer from the checkout page for their order. If you are also using CPQ Configuration functionality, the order may contain a combination of configured and non-configured items.

Request a Quote by an Agent

An agent can request a quote on one or more items in an order from the Commerce Cloud Agent Console. The agent must follow these instructions to request a quote:

1. Log onto the Commerce Cloud Agent Console.
2. Search for the customer for whom you wish to generate a new quote.
3. Click New to create a new order, or select an existing unfulfilled order for the customer.
4. Once you have an order with items in the cart, click on the Request Quote link in the order edit page. You can switch between the Request Quote page and the Create Order page by clicking on the appropriate link.
5. Add text to the Quote Notes text box as desired.
6. Click on the Request Quote button.

Once the agent has submitted the quote request, the Request Quote webhook is triggered and all relevant information is passed to CPQ Cloud for a decision on the quote. The order status is changed to "Pending quote". When an order is in Pending status, the agent cannot perform any operations on the order.

A confirmation email is sent to the visitor informing them of the status of their order.

7. Once a response is received, the order status changes to "This order is a quote", and the agent then has a number of options about how to proceed.

The agent can:

8. **Accept the quote:** If the customer is satisfied with the quoted price returned from CPQ Cloud, the agent can accept the quote on their behalf by clicking on the Accept button and proceeding with the order as normal.

Once payment information has been entered and the order placed the order status changes to "Submitted for fulfillment". At this point the Update Quote webhook is triggered and CPQ Cloud is informed that the quote has been accepted.

At this stage the agent can click on the Edit Order button, but the only edits allowed to the quote are changes to the shipping group, or the application of shipping discounts or promotions. The agent may not add or remove items from the cart, or change the quantities of items included in the order. The order status changes to "Order being amended" until the agent clicks on the Complete Order button.

9. **Request a requote:** If desired, the agent can enter more details in the Request Quote textbox and click on the Request Requote button to request an updated quote. When the agent requests a requote the order status changes to "Pending quote". When an order is in Pending status, the agent cannot perform any operations on the order.

10. **Reject the quote:** The agent can click on the Reject Quote button to reject the quote. This cancels the customer's order and the order status changes to "this quote has been rejected".

Note: The response to a quote request includes provision for an expiry date for the quote. If the quote has expired the Accept Quote and Reject Quote buttons are disabled, but an agent can request a requote for the order.

Once the agent responds to the quote a confirmation email is sent to the visitor informing them of the status of their quote.

Order statuses relating to quotes are included in the dropdown list of order statuses in the Order Details section of the Order Search page.

Request a Quote by a Visitor

A visitor can request a quote on one or more items in an order from the checkout page. The visitor must follow these instructions to request a quote.

1. Add the desired items to the shopping cart.
2. Proceed to the checkout page.
3. On the checkout page, enter supporting details in the Request a Quote text box.
4. Click the Request Quote button.

Once the visitor has submitted their quote request, the Request Quote webhook is triggered and all relevant information is passed to CPQ Cloud for a decision on the quote.

When a decision is made about the quote, the order is updated and the visitor then has three options about how to proceed.

They can:

- **Accept the quote:** This means the visitor is satisfied with the quote and they may continue through the purchase process with the prices provided. The checkout page is displayed and the visitor may enter their shipping details and proceed with payment.
- **Reject the quote:** This means that the visitor has rejected the quote provided by CPQ Cloud, and the order is cancelled.
- **Request a requote:** The visitor can use the Request Requote text box to provide further information and request an updated quote.

Use multi-level items

This integration provides support for a hierarchical structure for items available for shoppers to purchase. Commerce Cloud supports an "n-level" hierarchical configuration model. This means that a configured item can contain sub-items that are also configurable items and that can in turn contain sub-items that are configurable items.

An example of this would be a bundled package for a cellphone. The bundle itself would be the top-level item. The cellphone would be a configurable sub-item, but this could then itself have configurable sub-items, such as an SD card. Commerce Cloud can provide a top-level price for the bundle, but can also provide a price breakdown for each configurable item within the bundle.

If a shopper adds a multi-level item to their cart, Commerce Cloud works with CPQ Cloud to display the information about the multi-level item in the shopper's cart. The cart displays a total price and an item price for any configurable sub-items. If the shopper changes any of the configurable sub-items, the price displayed for that sub-item changes and the total price is also amended accordingly.

When a shopper clicks on the Place Order button a validation check is carried out to ensure that the prices displayed for the configured items is still applicable. If it is then the order can proceed. If it is not, a message explaining this is displayed to the shopper and the cart is reloaded with up-to-date price information included for the configured items.

You can create a multi-level hierarchy in your catalog using either a recommended items model or a bill of materials model. You must refer to the relevant CPQ Cloud documentation for instructions on how to do this.

Use Recurring Charge Items

This integration enables you to provide items that come with a recurring charge available for shoppers to purchase. Examples of items that include a recurring charge include a service such as a data/call minutes/ text message bundle for a cellphone, or a subscription charge for a cable television package.

Items that include a recurring charge may have just a recurring charge or may have a recurring charge and a price. If an item has a price and a recurring charge, it is assumed that the item is not a service or subscription

item. In this case the price represents an upfront payment and the recurring charge is the means by which the outstanding balance is paid.

Identification of items that include a recurring charge must be carried out through your CPQ Admin account. Please refer to the *Synchronize CPQ Cloud Parts with Commerce Cloud SKUs* section of the Implementation Guide contained in the [Integrating Oracle Commerce Cloud and CPQ Cloud](#) article on My Oracle Support.

If a shopper adds a recurring charge item to their cart, Commerce Cloud works with CPQ cloud to display full information about the recurring charges associated with the order. This includes how much the recurring charge is for, the frequency of the recurring charge, and the duration for which the recurring charge will be made.

Note: The default value for frequency is monthly and the default value for duration is open-ended. If either of these is not the right value for the item they must be corrected in the CPQ Cloud Part for the item.

Items with a recurring charge are not included in order sub-total passed to the shipping calculator. If a cart contains only recurring charge items the order sub-total passed to the shipping calculator is zero, which means that no shipping charge is applied to the order.

Configure payment for recurring charge items

Commerce Cloud includes several built-in integrations with payment gateways that let your store accept credit cards, debit cards, gift cards, and PayPal payments. However, these integrations do not currently support recurring charges. If you wish to sell items with recurring charges you must use one of the methods set out below to configure Commerce Cloud payment processing to support recurring charges.

Configure credit card payments

Follow these instructions to configure your credit card payment processing to handle recurring charges:

1. Create a custom credit card payment extension.

For detailed instructions about performing this step, refer to the *Create a credit card extension* section of *Extending Oracle Commerce Cloud*.

2. Install the custom credit card payment extension.

For detailed instructions about performing this step, refer to the *Install the extension* section of *Extending Oracle Commerce Cloud*.

3. Enable the payment gateway.

For detailed instructions about performing this task, refer to the *Enable the gateway* section of *Extending Oracle Commerce Cloud*.

4. Add custom properties to the Credit Card Payment webhook.

For detailed instructions about performing this task, refer to the *Credit card payment properties* section of *Extending Oracle Commerce Cloud*.

Note: This webhook is not site-specific. If you are running multiple sites on your Commerce Cloud instance, the configuration you supply applies to all sites that use this webhook.

Configure non-credit card payments

Follow these instructions to configure your generic gateway payment processing to handle recurring charges:

1. Create a custom generic payment extension.

For detailed instructions on performing this task refer to the Supported payment methods and transaction types section of *Extending Oracle Commerce Cloud*.

2. Install the generic payment extension.

For detailed instructions about performing this step, refer to the *Install the extension* section of *Extending Oracle Commerce Cloud*.

3. Enable the payment gateway.

For detailed instructions about performing this task, refer to the *Enable the gateway* section of *Extending Oracle Commerce Cloud*.

4. Customize the payment details widget to capture payment information other than card details.

5. Add custom properties to the Generic Payment webhook.

For detailed instructions about performing this task, refer to the *Send custom properties to a payment gateway* section of *Extending Oracle Commerce Cloud*.

Note: This webhook is not site-specific. If you are running multiple sites on your Commerce Cloud instance, the configuration you supply applies to all sites that use this webhook.

Use Asset Based Ordering

This integration supports an Asset based ordering (ABO) model. Asset based ordering allows you to sell tangible assets or subscription services delivered over a period of time; for example mobile phone call and data plans, television and broadband packages. When these orders are subsequently fulfilled, the fulfillment system notifies CPQ via an asset API, and CPQ then creates an asset in the CPQ asset repository.

Once created assets can subsequently be reviewed by shoppers in the My Services management area within the shopper account. The shopper can then administer an asset by creating and placing new commerce orders to perform actions such as modify, renew or terminate the asset. When a shopper performs one of these actions on an asset the CPQ asset repository is updated accordingly.

When a shopper opens the My Services management area within their account they are presented with a list of the assets linked to their account. From here they can select and Commerce Cloud displays a detailed view of the service. At this point the shopper can choose between the Modify, Renew, or Terminate actions.

Modify

If the shopper chooses Modify, Commerce Cloud loads the current configuration for the service in question and opens a screen that allows the shopper to modify the service as required. The new monthly charge for the service is updated automatically as the shopper makes their selections. The shopper can then add the modified service to their cart.

When the shopper goes through checkout and completes their order, Commerce Cloud submits a service modification request to the fulfillment system.

Renew

If the shopper chooses Renew, Commerce Cloud determines the configuration ID that represents a renewal of the service in its current configuration and then adds a renewal instruction to the shopping cart and opens the Shopping Cart Details page.

When the shopper goes through checkout and completes their order, Commerce Cloud submits a service renewal request to the fulfillment system.

Terminate

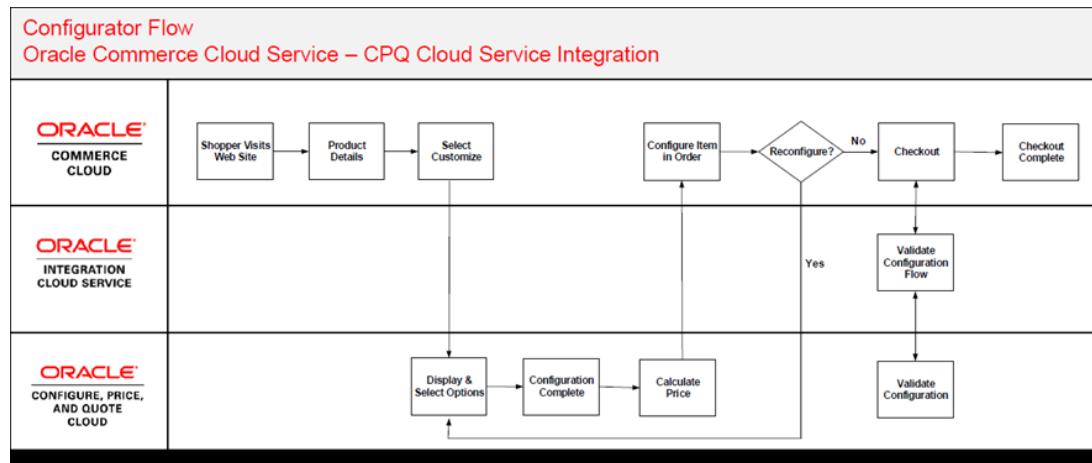
If the shopper chooses Terminate, Commerce Cloud determines the configuration ID that represents a termination of the service in question, adds a termination instruction to the shopping cart and opens the Shopping Cart Details page.

When the shopper goes through checkout and completes their order, Commerce Cloud submits a service termination request to the fulfillment system.

Each of the Modify, Renew, or Terminate actions may be carried out by a shopper or by an agent acting on the shopper's behalf.

4 Appendix A: Configurator Flow

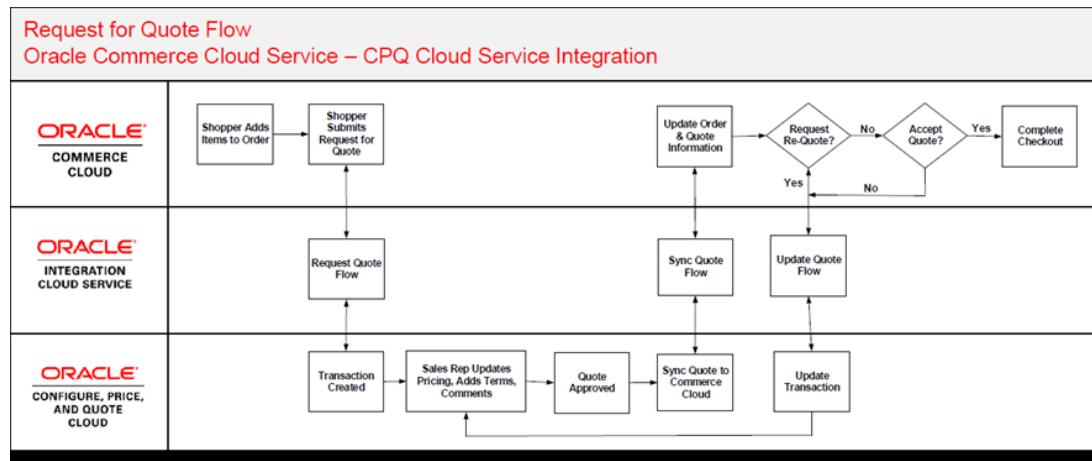
This appendix illustrates the flow between Commerce Cloud, ICS, and CPQ Cloud when using the Commerce Cloud-CPQ Configurator integration.



Configurator Flow

5 Appendix B: Request for Quote Flow

This appendix illustrates the flow between Commerce Cloud, ICS, and CPQ Cloud when using the Commerce Cloud-CPQ Quote integration.



Request for Quote Flow

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