CPQ for Users

Table of Contents

This section explains how to use Conga Configuration, Pricing, and Quoting (CPQ) to manage your organization's and your customers' configuring, pricing, and quoting requirements.

Topic	Description
What's Covered	This section walks the Sales Representative through the entire process of configuring, pricing, and quoting. It provides conceptual information, step-by-step instructions, and use cases for the features provided by Conga CPQ.
Primary Audience	• Sales Representative • Collaborator (such as a product owner, manager, factory manager)
IT Environment	Refer to the latest *Conga CPQ Release Notes* for information on System Requirements and Supported Platforms.
Updates	For a comprehensive list of updates to this section for each release, see the What's New in CPQ Documentation topic.
Other Resources	Refer to *Conga CPQ Release Notes* for information on system requirements and supported platforms, new features and enhancements, resolved issues, and known issues for a specific release.

This section describes the following tasks:

- Create quotes/proposals
- Configure products from the catalog
- Price products and apply adjustments
- Work with cart
- Finalize quotes/proposals
- Manage assets
- Manage services

Before using CPQ, you must be familiar with the following:

- Basic knowledge of Salesforce
- Salesforce and Conga terms and definitions

Select one of the following topics for more information:

- Getting Started
- Creating Quotes
- Using the Catalog

- Adding Products
- Working with the Cart
- Pricing Products
- Finalizing Products
- Finalizing Quotes
- Managing Assets
- Managing Services
- Glossary

Getting Started

This section explains the tasks to be performed to get started with the CPQ.

- About System Requirements
- Logging on to CPQ
- About CPQ User Interface

About System Requirements

CPQ is a web-based, on-demand application that is accessed through a standard web browser through the Internet. Before you install and start using CPQ, you must ensure the minimum system requirements. For more information, refer to the latest *Conga CPQ Release Notes*.

Logging on to CPQ

Log in to your Salesforce.com org to access CPQ.

> ⓘ Do not use the Back button on your browser when using CPQ.

Before you log in to CPQ, make sure you meet the following criteria.

- You have installed all of the required CPQ module packages.
- You have administrative privileges.
- You have login credentials provided by Conga.

To log in to CPQ

1. Go to http://www.salesforce.com/.
   Or
   If your organization is using a sandbox or test environment to access CPQ (for example, if you are doing user acceptance testing), go to http://test.salesforce.com/ instead.
2. From the toolbar at the top of the page, click **Login**. The login page opens.
3. Enter your user name and password, and click **Log in**.
4. Navigate to **Apttus Proposal Management** to access the proposals.
   - In Salesforce Classic: Click the App Menu

- In Salesforce Lightning Experience: Click the App Launcher.

Now that you have logged in, know more About CPQ User Interface.

About CPQ User Interface

The CPQ Home page is the starting point of various functions in the application.

The home page consists of the following components:

> ⓘ The Home page view depends on user settings.

Feature/Section	Description
Search	This feature enables you to quickly search for various items like Quote/Proposals, Templates, Accounts, Contacts, and more. You can further search within the results for specific objects using the Advanced Search feature. A search bar is available at the top of every window within the application, backed by an easy-to-use search engine. Based on the keyword you enter, the system searches against all key elements and retrieves quotes or proposals.
Create New	This button is located on the left-hand side of the homepage. This button provides an easy way to initiate new items like Quote/Proposal, Opportunity, Template, Account, Report, and more.
Tabs	These are individual tabs that provide you a broader view of specific items like Proposals, Templates, Reports, and more.
Dashboard	Dashboards give you a real-time snapshot of corporate metrics and key performance indicators. A dashboard is a group of different charts (or components) that graphically display your custom report data.
My Tasks	A quick summary of tasks that have been assigned to you.

Feature/Section	Description
Items To Approve	A quick summary of items that have been assigned to you for approval.
Setup	This link is located on the top right-hand corner of the homepage. The link redirects you to the Force.com home page using which you can perform actions, such as view, customize, add, or edit objects and fields.
Salesforce menu	The drop-down menu provides you with the list of Conga modules that you can use for configuring, pricing, and quoting.

The CPQ Home page enables you to access quoting information in a variety of ways; Searching, Reporting, Dashboards, and Views.

- Creating Views
  Views are a very powerful, and easy way to create a virtual file cabinet of your proposals. You can create views based on dates, values, products, any data field, or a combination of fields and also have specific fields displayed. Views are a customized way to display the exact information you are looking for.
- About Reports
  Salesforce delivers standard report folders containing reports for each record type. For example, Accounts, Opportunities, Leads, and more. These reports are used as a starting point for your organization's reporting efforts. Salesforce allows all users to run, customize, and create reports. For more information on setting up and managing reports within Conga, see salesforce.com information related to creating and customizing reports.
- About Dashboards
  Dashboards organize key statistics in easy to understand, bottom-line format, allowing you to gain the insight you need to fulfill your business needs.

Creating Views

Views are a very powerful, and an easy way to create a virtual file cabinet of your proposals. You can create views based on dates, values, products, any data field, or combination of fields and also have specific fields displayed. Views are a customized way to display the exact information you are looking for.

To create views

1. From the Salesforce drop-down menu, select **Apttus Proposal Management** and go to the **Proposals** tab.
2. Click the **Create New View** link.
3. In the **Enter View Name** section, enter a mandatory **View Name** and a **View Unique Name**.
4. In the **Specify Filter Criteria** section, specify the filter options to narrow down to your preferred view for proposals. For example, you can choose to view only those proposals for a specific Account.
5. In the **Select Fields to Display** section, from Available Fields, select one or more options and click the icon to move to Selected Fields.
6. In the **Restrict Visibility** section, select one of the following:
   - **Visible only to me**
   - **Visible to all users** (Includes partner and customer portal users)
   - **Visible to certain groups of users**
7. To save the view, click **Save**.

About Dashboards

Dashboards organize key statistics in easy to understand, bottom-line format, allowing you to gain the insight you need to fulfill your business requirements.

CPQ provides you with a set of out-of-the-box dashboards. Navigate to the **Dashboards** tab to customize the page by designating which dashboard type you prefer to see from a list. For more information, see Working with Dashboards.

The following table lists the out-of-the-box CPQ dashboards available to you:

Folder	Dashboard Name	Description
Agreement Dashboards	Contract Performance Dashboard	Displays the following graphs: • Dollars under contract • Contracts by status
	Executive Dashboard	Displays the following graphs: • Dollars under contract • Contracts by stage

Folder	Dashboard Name	Description
	Legal Performance Dashboard	Displays the following graphs: • Agreement by Status • Standard vs non-standard agreements.
	Total Contract Value by Account	Shows the total contract value by account.
Proposal Dashboards	Proposal Pipeline Dashboards	Displays graph about proposal and proposal value by stage.
	Revenue Dashboard	Displays Revenue Management dashboard.

About Reports

CPQ provides you with a set of out-of-the-box reports. These reports are used as a starting point for your organization's reporting efforts. You can also run, customize, and create reports. You can access the reports through the **Reports** tab. CPQ provides standard reports based on the most common reporting requirements.

The following table lists the out-of-the-box CPQ reports available to you:

Folder	Report Name	Description
Agreement Reports	Agreement Expiration - This Quarter	List all the agreements expiring in the current fiscal quarter.
	Agreement Expiration - This Year	List all the agreements expiring in the current fiscal year.
	Agreement Search	Easily find your agreements.
	Agreement Value Report	List all the agreements contract value along with their Account.
	Agreement by Stage	List the agreement and their stage.

Folder	Report Name	Description
	Agreement of High Value due Renewal	Lists the date the high value agreements are due for renew.
	Agreement with Non-Standard Terms	List all non-standard agreements.
	Contract Activity Report	List the recent contract activity report.
	Contracts Expiring This Year by Value	Lists the contract expiring this year with value.
	Contracts with non-standard language	Lists all agreement with non-standard language
	High Risk Contracts	Lists agreement with high risk.
Proposal Reports	Proposals by Stage	Lists the proposal based on the Approval Stage field. The report displays the account and the grand total of the proposal.
	Proposals Outstanding	Lists the proposals that are not closed to the present date.
	Proposals Value by Stage	Lists the proposal based on the Approval Stage field. The report displays the account and the grand total of the proposal.
	Proposals with Line Items and Products	Lists the details in a proposal including proposal header details, line items details with product, pricing, and line item fields.
	RFP Content Update Report This Quarter	Lists the proposal where RFP content was updated in the current quarter
	RFP Response Content	Lists the RFP content and the owner of the content.
	RFPs by Value	Lists the proposals with RFP values

Folder	Report Name	Description
Proposal Line Items	Quote and Quote Lines	Lists proposals and proposal line item details
	Quote Details by bundle	Lists proposals and proposal line item details grouped by bundles

You can create new reports by either starting from scratch or taking a report containing the desired results, modifying it, and changing the report's name using the Save As feature. For more information on setting up and managing reports within Conga, see Create a custom report.

About Reports (Backup)

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	Agreement of High Value due Renewal	Lists the date the high value agreements are due for renew.

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	Contract Activity Report	List the recent contract activity report.
	Contracts Expiring This Year by Value	Lists the contract expiring this year with value.
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Folder	Dashboard Name	Description
	Revenue Dashboard	Displays Revenue Management dashboard.

Creating Quotes

- Creating Opportunities in Salesforce

  The CPQ process begins as soon as you create an opportunity.
- Creating Quotes from Opportunities

  CPQ provides you the capability to enter necessary information via a user-friendly interface to prepare a quote/proposal request or a draft.
- Cloning Existing Quotes

  You can clone the existing Quote/Proposal using the Clone button on the Quote detail page.
- Creating Quick Quotes

  You can use the Quick Quote mode to quickly select numerous products from the product selection page directly from an opportunity with just one click.
- Including Product Footnotes in Proposal Documents

  Product footnotes enable you to dynamically include static *footnote* content in your quote/proposal documents, based on the products that are included in the quote.

ⓘ **Notes:**

Displaying Quote Name in the Application Browser Tab

CPQ shows a quote or proposal name for ease of navigation through the browser tabs.

- It shows the Quote/Proposal name when you are on the Catalog page, Installed Products page, Attribute/Options page, Cart page, Analyze Quote page, and Proposal Document Generation page.
- It shows the Collaboration ID in the browser tab for a Quote Collaboration Request.

Displaying CPQ Quote ID in the Application Browser Tab

When you create a quote/proposal, CPQ used to autogenerate a Salesforce Quote ID. To improve the user experience you can see a new CPQ specific Quote ID in the browser tab. On the following pages, CPQ shows the browser tab name according to the name of the quote/proposal: Catalog, Installed Products, Options or Attributes, and Analyze Quote.

Displaying Quote/Proposal Names instead of Numbers

CPQ displays the name of the Quote/Proposal adjacent to its label at the top left corner of the page. If the proposal name is too long then you can see up to 26 characters and then an ellipsis to expand the full name. While if you hover over, you can see the whole text.

You can see the proposal names on the following pages: Catalog, Installed Products, Renew, Terminate, Swap, Service Catalog, Attribute or Options, Cart Grid, Service Cart, Analyze Quote, and Compare Products.

Obsolete Quote Header Fields

CPQ does not use the following fields in any feature. They are displayed on the quote header but they are not functional.

- **Grand Total**
- **Net Amount**
- **Unit Price**

Creating Opportunities in Salesforce

Opportunities are the qualified contacts or accounts that you have already talked to and have entered into your sales cycle. Adding opportunities to Salesforce builds your pipeline and increases your sales forecast. You will use the Salesforce Opportunities tab to create and find your opportunities.

The CPQ process begins as soon as you create an opportunity.

ⓘ Opportunities are standard Salesforce objects, not custom objects. For more information on opportunities, see Salesforce documentation.

To create an opportunity

1. Log in to Salesforce.com.
2. Navigate to the **Opportunities** tab, and click **New**.

3. Enter the **Opportunity Name, Account Name, Close Date,** and **Stage**.
4. Enter additional information as required.
5. Click **Save**.

You have created an opportunity. For complete information about creating opportunities in Salesforce, refer to Create Opportunities and Opportunity Fields in the Salesforce documentation.

Creating Quotes from Opportunities

You can use the user-friendly interface to enter the necessary information and prepare a quote/proposal request or draft. To complete the quote/proposal, you must enter details relevant to a proposal. Some of the fields identified with (red vertical line) are required fields, without which you cannot save the proposal record. If the required details are not entered or incorrect details are entered, the system displays validation rule errors at the top of the page highlighted in red.

To create a quote/proposal

You must be logged into Salesforce.com. A series of colored tabs are aligned along the top navigation area.

1. From the Salesforce.com application menu, select **Apttus Proposal Management**.
2. Go to the Proposal tab and click **New.**
   - OR -
   Go to the Opportunities tab and click the **Create Quote/Proposal** button.

> ⓘ If you have installed CPQ for the first time, use **Edit Layout** to drag the button to the layout.

3. From Record Type of new record, select the desired record type, and click **Continue.** You can add any type of Quote/Proposal template (Budgetary, Final, and more). The out-of-the-box system only has the Proposal and RFP type. If quote/proposal types are not set up or if you have access to only one quote/proposal type, skip to the next step.
4. Type a mandatory **Proposal Name** and enter a mandatory Opportunity.
5. Enter a Price List and an Account.
   The Price List determines the categories and products you see in the configuration. Account is auto-populated if the proposal is created from an opportunity.
6. Select a value for **QTC Profile**. The following table describes the values of the field:

Value	Description
Regular	This is the default value of the field, the cart pricing and finalization are processed in sync mode by default. You can override this behavior by using URL parameters.
Split	Select this to enable Smart Cart flow for the quote. When you select this, the cart pricing and the finalization are processed asynchronously.
Enterprise	Select this to process the cart finalization asynchronously for a quote with maximum of 10000 line items. The administrator must define **finalizeCart()** API to finalize when the quote has more than 1000 line items. > ⓘ The administrator must add Enterprise as a picklist value in the QTC Profile field in the objects Quote/Proposal, Product Configuration, and Agreement for CPQ to display the value on the quote. The administrator must also configure finalizeCart() API to finalize an Enterprise quote. For more information, see Configuring Enterprise QTC Profile Value for Quote

7. An Opportunity may have many proposals or quotes. To set this record as a primary quote, select the **Primary** checkbox.
8. In **Primary Contact**, enter the primary contact person name for the account.

9. Select the **Single Transaction Adjustment** checkbox to control the adjustment of the billing based on the context in which the discount is applied. When you select this checkbox on a proposal, billing schedules are adjusted from the start of the contract term. For more information, see Calculating Billing Amount based on the Contract Term and the Single Transaction Adjustment Flag.

10. From the **Intent** drop-down, select what you want to achieve after the quote is accepted. The supported values are:

Intent	Purpose
Order	CPQ creates a regular flow, that is, order and assets. If you do not select any value from the **Intent** drop-down, CPQ considers *Order* as the default value.
Contract	CPQ does not create order and assets. Instead, CPQ will create an agreement as a related list to the proposal with Intent = Contract. You must use this option when cart configuration must be driven by agreements. • Auto-created related list Agreement (to proposal with Intent = Contract) will have auto-finalized configuration. • Auto-created related list Agreement (to proposal with intent = Contract) will have agreement line items while having the same price and adjustments carried in quote with Intent = Contract.
Price Agreement	CPQ does not create order and assets. Instead, CPQ will create a price agreement, which will be used for defining contract pricing for future quoting. Since the intent is price agreement, your agreement price rules will be generated, and also a new price list will be generated for you containing price list items related to each one of the line items in your cart related to proposal. The Net Unit Price (after all adjustments) of products on the quote with Intent = Price Agreement will be applied as list price on products during the new quote if the original quote number (earlier used as Intent = Price Agreement) is applied as the Contract Number on the new quote.

11. In the **Purchase Identifier** field, enter a unique identifier.

> ⓘ A purchase identifier is populated to cumulate the quantity, coterminate assets during quantity changes, bind various asset streams together, or add quantity upsell to the original renewal quote during renewal automation. This purchase identifier floats from quote to cart line items > proposal line items > order line items > asset line items. This purchase identifier is used to calculate the total quantity that spans multiple streams during the increment scenarios, on the Installed Products page (of a renewal quote).
>
> For example, you enter PI-01 in the **Purchase Identifier** field and the account has the following assets:
> - Asset A
> - Asset A
> - Asset B
>
> Then the total quantity of both Asset A and Asset A = 2, and the total quantity of Asset B = 1. For more information, see Managing Asset Increment with Coterminate Lines.

12. From Approval Stage, select the stage of the proposal. The approval stage determines the actions available to you for a quote/proposal. For detailed information on various approval stages and the actions available, refer to Glossary of Approval Stages.

13. To enable the final quote or proposal generation from the current proposal, select **Ready to Generate**. The **Ready to Generate** checkbox is selected by default. If it is not selected, the **Generate** button does not appear in the proposal.

14. To attach and send the proposal in an email to a configured account, select Ready to Present. The Ready to Present checkbox is selected by default. If it is not selected, the Present button does not appear in the proposal.

> ⓘ Before saving the quote/proposal, ensure that you have set the **Pricing Date** that falls in between PLI expiration and effective dates. Otherwise, Quote cannot pick the PLI with a pricing date from an expired PLI.

15. Click **Save**.

You have created the draft proposal which you can use for searching and reporting. Various new related lists are enabled on the quote/proposal page. To know more, refer to Glossary.

Navigate to the proposal you just created and proceed with product selection.

> ⓘ **Create quotes from opportunities inheriting the related line items**

You can create a draft quote with the selected service product and its related line items (asset line items) and then synchronize it with the opportunity. After clicking the synchronize with opportunity, you can also cascade the related equipment lines to the opportunity and forecast the service revenue in conjunction with the opportunity.

Similarly, you can create a renewal quote that carries over the related line items to the quote or cart.

Cloning Existing Quotes

You can deep clone the existing quote using the **Clone (with line items)** button on the Quote detail page. Cloning a quote copy's all the information from the existing quote, including line items and proposal header information asynchronously. You can deep clone a quote when you need multiple draft options of the same quote or need to make changes (for example, extend the quote expiry date) to a finalized quote before sending it out to the customer.

You can clone the quote in the following product configuration statuses:

- Pending Approval
- Ready for Finalize
- Approval Required
- Saved
- Finalized

ⓘ Quotes with **QTC Profile** defined as *Split* are cloned regardless of approval status as Smart Cart does not support cart approval.

The new cloned quote retails the information based on the configuration status and **QTC Profile** defined. The following table lists the information copied upon cloning the quote:

QTC Profile	Product Configuration Status	Information Retained in the Cloned Quote
- Regular - None	Finalized	- Proposal header details - Proposal Line Items
	All statuses except Finalize	- Proposal header details - Configuration Line Items

QTC Profile	Product Configuration Status	Information Retained in the Cloned Quote
• Enterprise • Split	All statuses	• Proposal header details • Configuration Line Items

The following information is not retained from the parent quote:

- Activity history
- Notes and Attachments

Cloning is processed asynchronously, CPQ tracks the different states of the process using the Async Progress Tracker.

To clone an existing quote

1. Navigate to your existing quote.
2. Click the **Clone (with line items)** button.
3. Fill in the required details in the cloned quote and click **Save**.

When you clone a quote with its line items, a new quote is generated with a unique quote number whose **Status** is *Draft,* and **Configurations** status is *Saved*.

If an approval trigger is set on the existing quote, the approval status and trigger are not copied to the cloned quote. You must re-trigger approval on the cloned quote. You can use the custom setting **Clone With Approval** to alter the approval status of a cloned quote. For information, see Clone Quote with its existing configuration.

Creating Quick Quotes

The Quick Quote feature allows you to create a simple quote from opportunity in fewer clicks. You can directly go to the Catalog page from Opportunity, configure products, and finalize the cart without having to create a proposal in turn reducing the number of clicks. Quick Quote feature is especially meant for creating budgetary quotes where you can begin the quoting process by populating the quote header with limited values.

After you complete the configuration on the Quick Quote you created from the opportunity, you are redirected to the Quote detail page.

When you create a quick quote, the following fields are populated based on the button's URL:

- Opportunity ID
- Price List
- Account
- Expected Start Date
- Expected End Date

The proposal name is set the same as the opportunity name. In addition to that, the custom fields that are common between both opportunity and quote are also populated, these custom fields are defined with the same API name.

The administrator must create the **Create Quick Quote** button, refer to Configuring Quick Quote Mode.

To create a quick quote

1. Navigate to the Opportunities tab, select an existing opportunity, and click **Create Quick Quote**. The Catalog page is displayed with products from the price list associated with that opportunity.
2. Search and configure products, add them to the cart, and finalize the cart.

After you finalize the cart, you are redirected to the Quote Details page of the quote created when you click **Create Quick Quote**. You are also redirected to the Quote Details page if you save, abandon, or close the cart. Your quote is ready using the Quick Quote mode.

Including Product Footnotes in Proposal Documents

Product footnotes enable you to dynamically include static *footnote* content in your quote/ proposal documents, based on the products that are included in the quote.

To include product footnotes in Proposal documents

1. Login to X-Author Contracts, select the **X-Author Templates** tab and check out (or create a new) a proposal document template.
2. Place the cursor in the template where you want the footnotes and click **Insert Merge Fields**.

3. Select Lookup Fields, and then select **Product Footnote Fields** > **Footnote** > **Text** and click **Insert Field**. The merge field is entered into the document template.
4. Click **Check-In** and ensure that Type is **Proposal** and that the selected Agreement Types also match those of the proposals you will use the template with.

When you Finalize your shopping cart and subsequently Preview or Generate the proposal document, you should see the text associated with the product footnotes — for the products included in the Line Items — displayed in the document.

Using the Catalog

The following features are available on the product catalog page.

- Searching Products from the Catalog
- Using Refine Your Search
- Comparing Products on the Catalog
- Using Guided Selling

Searching Products from the Catalog

The Catalog page enables you to select and configure products. This page allows multiple ways to search and choose the product you are looking for. You can select products by using the **Browse Catalog list**, **Browse**, or the **Search bar**. When using the search bar, you can search for any product regardless of category. However, the products must have their respective Price List associated with the Quote. You can search for products by:

- Product Code
- Product Family
- Product Description
- Product Configuration Type
- Category Names
- Location

In the search bar, enter the desired product and click **Search**.

> ⓘ As per the Salesforce limitation, the Text Search in the **Search bar** does not support wildcards at the beginning of the search term. For example, there are 3 products in your Catalog, namely Cat1_Product1, Cat1_Product2 and Cat2_Product4. If your Search Term is *Product1*, the search returns 0 result and if your search term is *Cat1*, the search returns 2 results (Cat1_Product1 and Cat1_Product2).

Based on your selection from any of the above-mentioned sections, the products are displayed in the Product Catalog section in the center. You can use the Refine Your Search feature to narrow the list of products. For more information, see About Refine Your Search.

Searching Product or Category

You can search for a product by doing any of the following:

- From the **Browse Catalog** list, select a category hierarchy you want to view.

- From the Browse section, navigate to the category hierarchy for the desired product.
- Sort the products in the Catalog page using the **Sort** drop-down. Click the sort icon (

  A̲Z̲) to see the available fields for sorting in the dropdown. You can select to sort the product in either ascending or descending order of the predefined fields. The following options are available to you in the **Sort** drop-down on the Catalog page by default. Your administrator can define more fields in Config System Properties:
    - *Product Name Ascending*
    - *Product Name Descending*

    > ⓘ The administrator can configure product sort to add more fields. For more information, see Configuring Product Sort. The **Sort** drop-down is hidden if Smart Search is enabled.

Based on your selection, the products are displayed in the Product Catalog section. If you have Refine Your Search configured, all the filter fields related to the selected category and Search bar are displayed dynamically in the Refine Your Search section. The system displays the products you search using the Search box, Refine Your Search, and Browse Catalog feature collectively.

Proposal Locations are defined to differentiate the products as per your customer locations. Depending on the Account and Proposal Locations defined for your Quote/ Proposal, the system displays products on the catalog page:

- If no account is selected on Quote/Proposal, the system does not filter any product.
- If an account is associated with your Quote/Proposal, the system return displays account locations (in the drop-down list) that are associated to the Account.
- If no proposal locations are defined, the system filters the products based on the account (previous 2 points).
- If you have defined proposal locations on your Quote/Proposal, the system displays only proposal locations in the drop-down list.
- If you add a product to the cart after you defined a location, any product that is auto-included through a constraint rule inherits the location you defined for the condition product.

You can further filter the product list by selecting the filter values from the **Refine Your Search** section. These filter fields change dynamically based on your Category and Search to further filter the products.

> ⓘ If you perform another search again, all your previous search selections are reset.

The product is added to the Selected Products panel on the right. If a product is configurable, you can configure a product with multiple options or attributes.

About Smart Search

You can use the Smart Search feature to search for products in a large and complex product catalog. Even though products are located in different categories in the catalog, the Smart Search finds those products using the keyword that matches in any product fields. The smart search typeahead mechanism helps you narrow the search results.

Prerequisites

- Your administrator must set up Smart Search. For more information, see Smart Search Setup.
- Your administrator must save the **Product Field Weightage** and **Typeahead** for your flow after the Smart Search is activated and refreshed. For more information, see Smart Search Settings.

Searching for Products Using the Smart Search

If Smart Search is enabled in your org, typeahead results are available while searching for products on the Catalog page. In the Search bar, you must type at least three letters for CPQ to display typeahead results. When you enter a keyword, you can see the typeahead results if the catalog has products that match the keyword according to the typeahead configuration.

For example, your org has many products whose name starts with "ABC" and your administrator has set **Typeahead** to "Product Name". When you enter "abc" in the Search bar, you see products in the typeahead results that have "abc" mentioned in the **Product Name** field.

You can see a maximum of six products in the typeahead results. If you find the required product in typehead results, you can click the product name link to navigate to the Search Results where that product is listed at the top. Otherwise press **Enter** to see the complete list of search results. CPQ sorts the search results based on relevance, which means the most relevant product appears at the top of the results.

How Product Field Weightage Works

The products are listed based on the weightage configuration of the Smart Search. The products with higher weightage are displayed first. This section explains how the weightage works. For example, your administrator has configured the following products:

Product Name	Product Code	Product Description
ABC Software	Security 100	Authenticate Senders
ABC Hardware	Hardware 100	Stop Malware
ABC Cloud Imposter	Software 100	Post-delivery Protection
XYZ Software	Security 101	Segmentation for security
XYZ Hardware	Hardware 101	SMB and SD-Branch
XYZ Cloud Imposter	Security 102	Software with Subscription

Use Case 1

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Name	100%	Yes

When you search for "software", the smart search results as follows:

- XYZ Software
- ABC Software
- ABC Cloud Imposter
- XYZ Cloud Imposter

Use Case 2

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Code	100%	Yes

When you search for "software", the smart search results as follows:

- ABC Cloud Imposter
- XYZ Software
- ABC Software
- XYZ Cloud Imposter

Use Case 3

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Name	75%	Yes
Product Code	25%	

When you search for "software", the smart search results as follows:

- XYZ Software
- ABC Software
- ABC Cloud Imposter
- XYZ Cloud Imposter

Use Case 4

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Code	75%	Yes
Product Name	25%	

When you search for "software", the smart search results as follows:

- ABC Cloud Imposter
- XYZ Software
- ABC Software
- XYZ Cloud Imposter

Use Case 5

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Name	50%	Yes
Product Code	30%	
Product Description	20%	

When you search for "software", the smart search results as follows:

- XYZ Software
- ABC Software
- ABC Cloud Imposter
- XYZ Cloud Imposter

Use Case 6

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Name	30%	Yes
Product Code	20%	
Product Description	50%	

When you search for "software", the smart search results as follows:

- XYZ Cloud Imposter
- XYZ Software
- ABC Software
- ABC Cloud Imposter

Use Case 7

If the weightage configuration is as follows:

Field Name	Weightage	Typeahead
Product Name	20%	Yes
Product Code	50%	
Product Description	30%	

When you search for "software", the smart search results as follows:

- ABC Cloud Imposter
- XYZ Cloud Imposter
- XYZ Software
- ABC Software

Limitations of Smart Search

The Smart Search feature has the following limitations:

- The Sorting option is not visible on the Catalog page when Smart Search is enabled.
- Typeahead does not honor Search Filters (CPQ). Even if the administrator has configured a search filter to hide a product, the typeahead can still show that product it it matches the keyword according to the typeahead configuration.

Using Refine Your Search

When you are selecting items from the Product Catalog, **Refine Your Search** enables you to narrow the list of products to those that match your search filter questions.

Search filters are associated with categories, so that the *Refine Your Search* questions may change when you select different product categories. The questions are also found in the product record, which is how the Product list gets refined. When you select an answer to a question and that answer matches the answer on the product record, that product is included in the filtered Product list. For more information, see About Refine Your Search..

> ⓘ For a product to be displayed on the Catalog page, it must match all of the selected Refine Your Search criteria.

To refine your Search

You must have configured Custom fields for each search question.

1. Select a Quote/Proposal and click **Configure Products**.
2. On the Catalog page, search for a product. Based on your selected category, all the products are listed in the Product Catalog section.
3. The **Refine Your Search** window displays the search filter questions. Select a value to answer the questions that best match your requirements, and based on your selection, the list of products are further filtered to narrow down the list.

The displayed products list will refresh to only display those products which match the search criteria. Products must match all criteria to be displayed.

Additional selections you make in the Refine Your Search window will further filter the products list.

Comparing Products on the Catalog

Product comparison allows you to compare features of multiple products on the catalog page enabling you to narrow down to products that best fit your customer's needs.

To compare multiple products

1. On the Catalog page, select more than one product to compare.
2. Click **Compare Products**.

A Product Compare page appears listing the selected products and its features in the tabular form. You can show/hide the products to display on the comparison page.

- The system indicates the number of products that you have chosen to compare inside parenthesis on the **Compare** button. This helps you keep a counter of the number of products chosen for comparison on different pages on the catalog page. After product selection, the system also indicates how many products you have chosen for comparison, as *'n' selected*. The products can be chosen from different categories also.

- You can remove a product from the selection by clicking icon adjacent to each product.

- The products are listed in the Compare Products selection dialog box based on the order of your selection and not in an alphabetical order.

To go back to the catalog page, click **Return to Catalog**.

The **Return to Catalog** button now takes you back to the last category that you had browsed for product selection. For example, you had selected Product 1 from Category A and Product 2 from Category B. Once you are on the Product Comparison page, clicking **Return to Catalog** takes you to Category B and the catalog page (containing all the categories).

Using Guided Selling

This feature has been deprecated since Spring '21 release.

Adding Products

The Quote creation process involves product selection, configuring attributes, configuring options, and pricing the products. Pricing can be done only after you have added products to the shopping cart. The Quote/Proposal detail page is the gateway to select and configure your products, and later price and finalize them to generate a Quote/Proposal. When you configure products, Product Configuration is created on the Quote/Proposal detail page that holds the details about the product you configure on the cart including the options and attribute configuration and pricing configuration.

The Quote creation process comprises the following four steps:

- Select: This stage of the process enables you to select products from the Catalog page. You can select and add Standalone and Bundle products directly to the shopping cart or choose to configure products that have attributes or options associated with it. While doing this, you can also view the Product Summary by clicking a specific product, which lists the Product Code, Product Description, and whether a product has attributes and options associated with it.
- Configure: On the Catalog page, if you choose to configure products, you can select attributes from the Attributes page or select options from the Options page.
- Price: After you are done with your product selection or configuration, you can price them on the Shopping Cart page.
- Finalize: Once your cart is complete, you can finalize the cart and your quote is ready to be generated.

Depending on your profile or any other business use case set for your organization, when you click **Configure Products**, you may view different versions of the following:

- Catalog page, Attributes page, Options page, Cart page, and Assets page.
- Action buttons like **Next**, **Reprice**, **Save**, and more.
- Columns on the Cart page.

> ⓘ If your administrator implemented contract pricing, use the **Configure Products (Contract Pricing)** to add products to your quote. For more information, see Managing Contract Pricing.

This section describes the following topics:

Configuring Products from the Catalog

If you have attributes and/or options associated to your products, you can configure them from the Catalog page.

Configure Product Attributes - You can select and configure attributes for your products from the Attributes page.

Configure Options for bundle product - You can select and configure options for your products from the Configuration page.

If the system is configured such that you have to include one or more products along with your regular product selection, you may view the following possibilities on the Catalog page and Configuration page:

- If there is only one product, it is auto-included automatically and you will see only the **Add to Cart** button.
- If there is an option to select only one product from a product group, you will see a radio button next to each product and the **Add to Cart** button.
- If there is an option to select multiple products, depending on the minimum/maximum number of products set for your organization, you will see a checkbox next to each product and the **Add to Cart** button. This enables you to select multiple products at once.

> ⚠️
> - If no option products are visible due to Visibility rules configuration or different price lists, and the administrator have set the minimum options as zero, the system considers this configuration as invalid. Ensure that your administrator has set the right configuration for the Min/Max option for an option group.
> - CPQ does not display a message when you hover over an option product which is disabled on the configuration page. As a part of notification and error handling, CPQ provides a defined Rule Messaging for exclusion rules. If you run the exclusion rules successfully, no hover over message is displayed, unlike in the case of inclusion rules where such messages are helpful for you to make a decision about adding products to the cart.

You can see the following buttons on the Configuration page:

Action	Description
Validate	Validates that the Catalog is configured correctly, that is, there is no validation or other rule-related errors in catalog configurations. This button ensures that the constraint and pricing rules are processed for your products. While the configurations are validated, the **Go to Pricing** button is disabled on the Configuration page. After the configurations are validated, the **Go to Pricing** button is enabled. After you click **Go to Pricing**, the Cart page is displayed.
Go to Pricing	Calculates the price of products on the Configuration or Catalog page, and navigates you to the Cart page. When your administrator has enabled the **Bypass Shopping Cart** setting, this button is hidden on the Configuration and Catalog pages. However, you can still finalize the quote using the Mini cart.
Add More Products	Returns to the Catalog page to add more products.
Installed Products	Navigates to the Installed Products page. You can select products from a list of purchased products that are associated with the account, which is associated with the proposal. This enables you to select products directly that are previously purchased by the account.
Update Price	Calculates the price of a bundle and its options on the Configuration page. This button is enabled whenever you change field values on the Configuration page and is disabled once the pricing is updated.
Abandon	Abandons the current cart (deletes the cart).
Close	Closes the cart without saving any changes to it.
Edit	The **Edit** button in the menu under the proposal name enables you to edit the Quote details.

Action	Description
View	The **View** button in the menu under the proposal name enables you to view the Quote details.
Confirm Option Selections	Initiates calculation of pricing, expression, and execution of rules on the Configuration page. Click this button after you configure all the options and attributes. This button is only displayed if the administrator enables it.

To configure product attributes

1. Follow one of the following ways to find a product on the Catalog page:
   - From the **Browse Catalog** list, select a category hierarchy you want to view.
   - From the Browse section, navigate to the category hierarchy for the desired product.
   - In the Search bar, type a category or product name and click **Search**.
2. From the Product Catalog section, to configure attributes for a product, click the **Configure** button.
3. Configure the required attributes. You can search for attributes using the search bar next to the bundle name. Type full or partial text and click **Next** or **Previous** or press *Enter* to search the attribute. The search result is highlighted under the respective tab.

   ⓘ The values of attributes can depend upon the selection of other attributes. The visibility of values in the attributes is based on the dependent attributes. If you select a certain value in an attribute, only the relevant values are displayed in the dependent attribute. You must remove or select a different value in the attribute to see different values in the dependent attributes.
   If you want to see all the values of an attribute after the values are filtered, click the cross icon (✖). Regardless of the values of dependent attributes, all the values are displayed and when you select a different value, the dependent attributes are filtered based on your selection. For example, the values of Attribute B depend on the selection of Attribute A. When you select a value in Attribute A, only relevant values are displayed and all other values are hidden on Attribute B. If you change the value of Attribute B, the value of Attribute A changes automatically.

> While changing attributes, you must wait until the constraint rule execution is complete. If you keep changing the attribute value multiple times and switching between the Product Attributes tab and the Product Options tab on the Configuration page, the Product Options tab disappears intermittently.

4. The following actions are available for you once you select the attributes.
    - Click **Next**. This button appears in case of bundled products where you may need to configure or add additional products.
    - Click **Add More Products**, to add additional products.
    - Click **Remove Item**, to remove a product.
    - Click **Go to Pricing** to price the product.
    - Click **Validate** to verify your configuration.

The values for an attribute can be driven by the numeric expression builder configured for the selected product. While the constraint and pricing rules are processing in the system, the **Go to Pricing** button is disabled on the Configuration page.

Based on your selected attributes, the system saves the product in your shopping cart.

> ⓘ
> - On the Product Attribute Group Detail page, you can set the Two or Three Column Display for the product attributes in order to view the configured attribute groups in two or three-column format.
> - CPQ displays a red border on the left when attributes are set required in the UI.

Attributes can derive the price for a product from an attribute without additional configurations to the Attribute Group for that attribute.

Consider a product Internet Plan, with three attributes - Internet Speed, Data Limit, and Package Price. On configuring the product from the cart page, the user enters the value for Internet Speed and Data Limit. Create an attribute Package Price, for which the value is calculated using the formula Internet Speed * Data Limit using field expression builder. The Package Price attribute value will not be shown to the user on the ProductAttributeDetail, ConfigureBundle, and ConfigureOptions pages. The user can choose to derive the Base Price of the product Internet Plan from the Package Price Attribute Value using the Default Price From field from the Default tab of the Price List Item.

The attributes calculated using formula fields are hidden from the following pages:

- Apttus_Config2__ProductAttributeDetail3- Attributes for Bundle or Standalone products
- Product Attribute Detail page
- Page Configure Bundle page - Attributes for Options
- Select Config Options Detail View- Attributes for Options shown in line with the option
- Configure Option page.

To configure bundle products

1. You can select a product by doing any of the following:
   - From the Browse Catalog list, select a category hierarchy you want to view.

- From the Browse section, navigate to the category hierarchy for the desired product.
- In the Search bar, type a category or product name and click **Search**.

2. From the Product Catalog section, to configure options for a product, click **Configure** next to it. The selected product is displayed in the Selected Products section on the right and the options page is displayed.
3. Select the options for your bundle. You can search for products using the search bar next to the bundle name. Type full or partial text and click **Next** or **Previous** or press *Enter* to search the product in various option group tabs. The search result is highlighted under the respective tab.
4. The following actions are available for you once you select the options.
    - Click **Add More Products**, to add additional products.
    - Click **Remove Item**, to remove a product.
    - Click **Go to Pricing** to price the product.
    - Click **Save** to save your selected product for that quote.
    - Select **Optional** to consider a particular line item as an optional one.

The values in the **Quantity** field for options can be driven by the numeric expression builder configured for the selected option.

> ⓘ The precedence for calculating the default quantity of an option product is as follows:
> a. Transactional input provided by the sales representative on the Configuration page
> b. Default quantity defined at the bundle structure level
> c. Default quantity defined at the price list item level

The **Save** button is used in case you want to save your configuration before proceeding to the attributes and cart page. For example, if you change the **Quantity** of the options associated with your bundle product, you might want to save the configuration before moving to the cart page.

> ⓘ The administrator must enable the search bar on the Configuration page. For more information, see Configuring Config Page Settings.
> Hidden options and attributes are not displayed in the search result.

Configuring Optional Line Items

You can mark bundles, sub-bundles, and options in the bundle as optional. This helps you to give customers a choice and recommend the product to them as part of the configuration.

You can present these optional products separately in a proposal document or keep them as a part of the configuration. Click **is Optional** checkbox next to a product to mark them optional.

Whenever you mark any product as optional, the price of the product is not included in the total. If you mark a bundle as optional, the price of that bundle is not included in the total and if you mark an option in a bundle as optional, the price of that option is not included in the bundle price.

Keep in mind the following when you mark options or bundles as optional.

- When you mark a bundle as optional or clear the **is Optional** checkbox, the action is cascaded to all options and sub-bundles associated with that bundle. That is, if you mark a bundle as optional, the options and sub-bundles are also marked as optional. Though, you are allowed to edit the **is Optional** checkbox for the associated options and sub-bundles.
- You can edit **is Optional** checkbox for options or sub-bundles added because of rules.
- You can edit **is Optional** checkbox for options or sub-bundles that are marked as required only if the parent bundle is marked optional.
- You cannot edit **is Optional** checkbox for options in the radio button group, unless the parent bundle is marked optional.
- The options for which you selected **is Optional** checkbox are not considered in the Option Group Min/Max validation. You must select other options in that Option Group that are not marked optional to satisfy the Min/Max validation.
- The options in an optional bundle which is marked by the **is Optional** checkbox, are not considered in the Option Group Min/Max validation regardless of the **is Optional** value for the individual options themselves. The details like amount and quantity are not considered in the validation.
- You can edit **is Optional** checkbox on the Cart page as well.

> ⓘ Optional products are not considered in the Min/Max criteria only if **Exclude Options Products** was enabled by the administrator in Config System Properties. For more information, see Excluding Optional Product in Min/Max Criteria.

The **Validate** button ensures that the constraint and pricing rules are processed for your products. While the configurations are validated, the **Go to Pricing** button is disabled on the Configuration page. Once validated, the **Go to Pricing** button is enabled.

After you click **Go to Pricing**, the Cart page is displayed.

You can clone a bundle within the same quote, make modifications, and use it as another bundle.

This feature enables you to clone a bundle with attributes, options, and pricing, make desired changes and save it as another bundle.

> ⓘ **Min-Max Messaging:** On the product configuration page, when you make a selection of options in the desired Option Group, CPQ displays the min-max messages guiding you about how many options can be selected. For example, If you want to select X number of options where options can be X to X+n (n=1,2,3...). Then you will see an appropriate message for selecting those options from the desired Option Group. Optional products are not considered in the Min/Max criteria if **Exclude Options Products** is enabled in Config System Properties.
>
> **Horizontal Scroll for Option Groups Tab:** The Product Configuration page provides a horizontal scroll bar when you have many option groups. You can see a single line of tabs for option groups and for menus with many option groups, you can also see the submenus with option groups being available for selection.
>
> **Increased Threshold for Bundle Maintenance Job:** You can run Bundle Maintenance Job without failure when CPQ has a large number of options validated with the following scenarios.
> - 10,000 options groups for the entire system
> - 10,000 options in a given option group
> - 2,000 option groups for a given bundle with an average of 3 to 5 options each group

To clone a product

You must have an existing product in the cart.

1. On the Cart page, select products using the checkbox.
2. Click the Copy icon (⧉). The product line items are cloned on the cart page.
3. You can configure the products and make the desired changes.

> ⓘ If you clone bundles with complex structure multiple times, CPQ may encounter *STRING_TOO_LONG* or *Apex CPU Time Limit Exceeded* error. The errors may also be encountered if the administrator has defined Option Filter Callback.

You have created another bundle from an existing bundle. You can proceed to pricing.

To lock an option value

A lock icon appears when the quantity of the option is derived using a numeric expression. You can click the lock icon next to the option, to ensure that any updates to the field from which its value is derived do not affect the value set the first time. For example, you can lock the quantity field for an option that is populated based on multiple attribute values using the field expression builder, once you enter the attribute value on the Attribute Detail page and click **Next**, the value for quantity is auto-populated.

1. Select the option and click the Lock icon.
2. Navigate back to the Attribute detail page and edit the attribute value and click **Next**. Notice that the value of the Option does not change even though the attribute value has changed.

ⓘ
- If you skip any mandatory configurations, the status of your configuration is shown as pending with a red exclamation mark on the Cart page. You must complete the pending configurations in order to finalize the Cart.

When a product is added by a rule that populates the AddedByRuleInfo__c field on the line item with a value, CPQ does the following:
- Clears the **is Optional** checkbox if **is Required** checkbox for the line item is selected at the Option Group level.

In both cases above, you can edit the **is Optional** checkbox.

To select products from prompt

The prompt appears on the Catalog page when you add a product to the cart that cannot be sold alone, but other specific products must be sold with that product. When you add such product, CPQ requires you to select a minimum or a maximum number of products from the prompt to add to the cart. The product listed in the prompt is based on the inclusion constraint rule defined by the Administrator.

There are two types of prompt that appear on the Catalog page.

- With checkboxes: In the prompt with checkboxes, select the checkbox against the product you want to add to the cart and click **Add to Cart**. The **Add to Cart** button is not enabled until you select at least a minimum number of products and the remaining products are disabled when you have selected a maximum number of products. The prompt is closed when you click **Add to Cart**.

- Without checkboxes: In the prompt without checkboxes, you need to click **Add to Cart** button against the products. After you click **Add to Cart**, the product is removed from the prompt. When you select less than the maximum value, you have to manually close the prompt because the prompt closes automatically only when the maximum number is reached.

After you add the product to the cart, the counter on the mini-cart icon at the top right-hand side corner is updated. The number of products in the cart is reflected on the counter. If there is a recommendation constraint rule defined on any product you added to the cart, the counter on the recommendation ( ) icon is also updated.

About Favorite Configurations on the Cart

As a Sales Rep, you can use a saved configuration to add products to the cart and also save an already configured cart and use the same configuration multiple times. These configurations are saved using Save as Favorite feature. Favorite configuration enhances the product configuration and quoting process by providing the user the ability to create, share, and import favorite configurations or designs.

The saved configuration also includes the products added through constraint rules and default options that are auto-included. You can add a favorite to the cart same as you would add any other product from the catalog. You can add multiple saved configurations to the cart.

The favorite configuration can be private or public. A private configuration is saved to your library and is only visible to you. However, public configurations are displayed on the Catalog page of all other Sales Reps as well.

You can also categorize the saved configuration using the filters provided on the Save as Favorite pop-up on the Cart page. You can use these filters to search for the saved configuration on the Catalog page similar to how you search for products using Refine Your Search.

As a Sales rep, you can use a saved configuration to add products to the cart and also save an already configured cart to the same configuration multiple times. These configurations are saved using Save as Favorite feature. Favorite configuration enhances the product configuration and quoting process by providing the user the ability to create, share, and import favorite configurations or designs. The favorite configuration can be private or public.

ⓘ The administrator must configure the Save as a Favorite feature. For more information, see Configuring Save as Favorite. The visibility of the functionalities provided in this feature depends on the permissions defined by the administrator for your user or profile.

Vertical industries in the quote to cash domain require a capability of favorite configurations. This feature is useful for the following scenarios:

- Speed up quoting process – you can save frequently configured solution, which is complex in nature for its re-use at a later time.
- Dynamic bundles – as a product manager, you have the ability to create, save and import a saved configuration as a whole.

CPQ provides the following functionalities in the Save as Favorite feature

Saving your Favorite Configurations

A button called **Save as Favorite** is available on the Cart to save the configuration for a particular Quote/Proposal. Select the products you want to save in the configuration and click **Save as Favorite**, a pop-up is displayed. You can customize the fields displayed this dialog box by using Favorite Configuration settings. The following table explains the different fields inside the pop-up.

Field	Description
Name	Enter a suitable name for your favorite configuration. This name is displayed as a record under your Favorites category.
Scope	Choose an option for the visibility of your configuration record. The available values are, *Public* and *Private*. If you set this to *Private*, this record is visible to only the owner of the record. If you set this to *Public*, this record is accessible to all the users. The default value is *Private*. The visibility of this field depends on the configuration defined by your administrator.
Description	Enter details about your favorite configuration.

Field	Description
Favorite Filters	Select values from the picklists to categorize the favorite configuration. You can select the values as you desire or leave the default values of the picklists that are displayed. Your admin must pre-define the picklists that are displayed on the dialogue box in the **FavoriteFilters** setting.

These favorite configurations are saved on Price Lists and can be used across multiple quotes.

The favorite configuration records are visible on the Catalog page only after you save your favorite configuration record and reconfigure the Cart.

Reusing your Favorite Configurations

As a Sales Rep, you can add a saved configuration to the quote. You can also add multiple configurations. When you add a saved configuration to the quote, a copy of the original design is created. This is useful in case if you want to edit the design on the quote without impacting the original design.

After you have saved your favorite configurations for a particular Price List and have associated this Price List with your Quote/Proposal, a separate category, named **Favorites**, containing your favorite configurations is displayed on the Catalog page. CPQ creates a clone of the favorite configuration records every time you associate the Price List with a Quote/Proposal. Ensure that the primary charge type is same on both the price lists.

> ⓘ You can set your favorite category to be displayed first when you have multiple offerings, using a custom setting **Show Favorite as First Category**. For more information, see Sequencing the Favorite Category on the Catalog Page.

Note that the rules (Constraint rules, Validation rules, and more) are carried forward in the cloned favorite configuration records.

You can search the favorite configuration records just like the normal products on the Catalog page using **All Favorites** option from the Search drop-down list. You can also use **Refine Your Search** to search for the desired saved configuration. While importing a favorite, you can also control whether you want to include discounts to the cart or not. The price of the favorite product is derived from the Price List associated with the Quote. You

can only import a Favorite Configuration when your administrator has defined appropriate access for your profile.

For every favorite configuration record, Add to Cart action button along with the drop-down list containing **Exclude Adjustments**, **Delete** and **Publish** buttons is displayed on the Catalog page.

- **Add to Cart** – this will simply put all the cloned Line Items (including Options, Attributes, and manual adjustments) of your favorite configuration record in the Cart.
- **Exclude Adjustments** – this will fetch details of all the Line Items (including Options and Attributes, excluding manual adjustments) and add them to the Cart. The manual adjustments that you have applied to the original favorite configuration record are not carried forward to the cloned favorite configuration record.
- **Delete** – this will delete a favorite configuration record. This button is dependent on the privacy defined for your favorite configurations. As a user, you can view all the public configuration records and can delete only those records for which you are the record creator or owner.
- **Publish** – this will publish your favorite configuration record to another Price Lists. From the **Choose Price Lists** dialog box, you must select the price lists to which you want to publish your favorite configuration record. You can publish a favorite configuration record using the **Publish** button on your favorite configuration record in Salesforce also. Once published, this record shows up under your **Favorites** category of the Quote/Proposals that use the price lists containing these favorite configuration records.

You can control the fields displayed in the pop-up dialog box when you click the Product Name on the Catalog page. Similar to custom settings defined for normal products, you can create a separate record under **Object Summary Settings** for the favorite configuration record.

Name the new record as *Favorite Configuration* and select *FavoriteConfiguration__c* as the **Object Name**. For more information, see Configuring Object Summary Settings.

> ⓘ **Multiple Adjustments Using Favorite Configuration**
> You can configure and add a product to the cart and then apply price adjustments to it. Save this product configuration as Favorite on the cart. Hence, next time you can leverage the favorite configuration to add multiple adjustments to products in the cart. This helps you save time and expedite the process of applying price adjustments using the Favorites on the Product Catalog page.

Providing Ability to Add Multiple Favorites with a Single Click

CPQ provides you an ability to add multiple favorite product configurations to the cart with a single click. On the Catalog page, if you click **Add to cart** for any of the Favorites, CPQ disables the **Add to cart** button for all the available favorites and enables them back when you complete pricing operation.

About Quote Lifecycle Collaboration

As a Sales Rep, you can request different users to collaborate on a configuration using the Quote Collaboration feature. The feature helps you to work with different users, called the Collaborators, and get their input on a configuration or pricing, merge the changes with the original configuration and finalize a single quote. Quote Collaboration allows you to assign a part of the configuration to Collaborator that you need help with, which helps you to limit the exposure of the entire configuration. You can use SalesForce Chatter to communicate with the Collaborator.

The following roles are participating in a Quote Collaboration:

Role	Description
Sales Rep	The Sales Rep initiates a collaboration process. Typically a Sales Rep is a member of the sales team and has a customer-facing role. The Sales Rep is in charge of sending out a single final quote to the customer.
Collaborator	A Collaborator is a product owner, manager, factory manager, or another user who has the knowledge about a particular configuration. Another Sales Rep can also be a Collaborator.

The following table describes the types of collaboration you can use:

Type	Description
Peer-To-Peer	In the Peer-To-Peer collaboration type, users from the same business units can collaborate on a configuration. In peer-to-peer collaboration type is selected, the entire line item is sent over in the collaboration request.

Type	Description
Multi-tier	In the Multi-tier collaboration type, users from different business units can collaborate on a configuration. When you use the multi-tier collaboration type, only specific fields in the line items are sent in the collaboration request. Ideal for situations for which creating a cost structure is necessary when using transfer price mapping or any other collaboration scenario that requires a specific update of certain fields.

Process flow

The basic flow of the quote collaboration from initiating the collaboration request to its closure is described below:
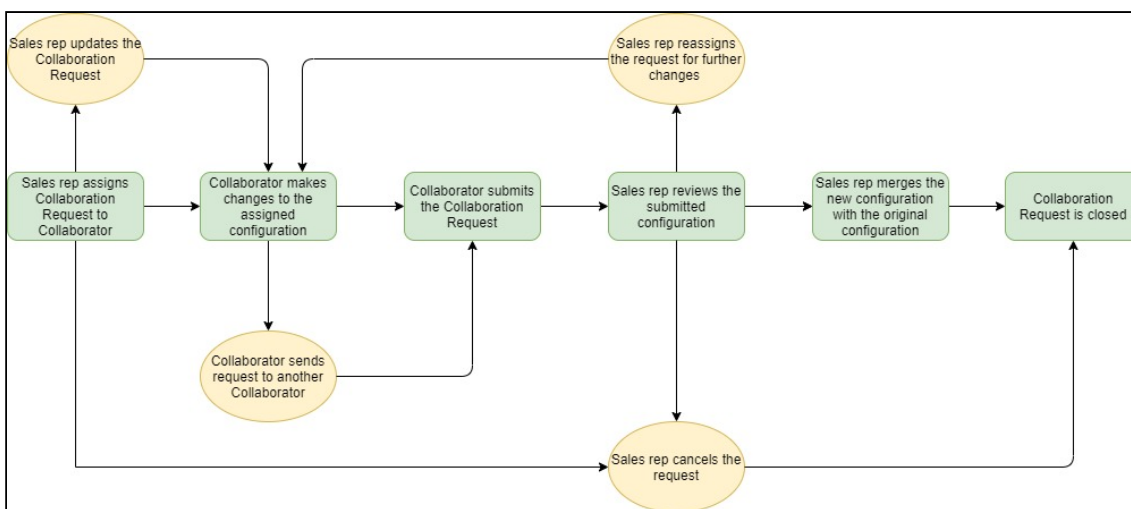
- To initiate quote collaboration, you must assign a collaboration request to a Collaborator on the Cart page. Quote Collaboration feature allows you to assign multiple collaboration requests from a single configuration to a collaborator or assign different collaboration requests to different Collaborators. You can assign a complete line item or specific fields of a line item.
- Once you have assigned the request, the Collaborator can work on the configuration and submit the configuration back to you for review.
- You can monitor and administer the progress of collaboration requests on the Quote Collaboration pop-up once you have assigned them.
- You can review the changes the made after the collaborator submits the request.
- If the changes are not acceptable, you can send the request back to the Collaborator or reassign the request to someone else. You can also reject the request completely if the submitted configuration is not acceptable.
- If you accept the changes you must merge the configuration submitted by the collaborator with the original configuration in the cart.

- After the collaboration request is merged, the request is considered closed. However, you can initiate a new request on the same line items again.

The Collaborator can also share the collaboration request with other Collaborators, which creates a sequential chain of requests. For example, you assign a collaboration request to Collaborator A, who in turn further assigns the same collaboration request to Collaborator B. The sequence here is Sales rep > Collaborator A > Collaborator B. To close sequential collaboration requests they must be merged in the reverse sequence that they were assigned. That is, Collaborator B must submit the request first, then Collaborator A and in the end, the Sales rep must accept the changes.

You must close a collaboration request to finalize the Cart or send the cart for approval. The **Finalize** and **Submit for Approval** buttons are disabled on the Cart page when the collaboration requests are not accepted. This prevents you from finalizing or approving the cart prematurely. A warning message is displayed on the Cart page when collaboration requests are not closed.

When you initiate a collaboration request, the Collaboration Status changes as the request progresses. The following table describes the different status of the collaboration request:

Collaboration Status	Description
Assigned	The Sales rep has assigned the configuration request to the collaborator. This status is shown with an orange exclamation mark when the sales rep assigns the request to the collaborator.
Submitted	The Sales rep has submitted the configuration request to the collaborator.
Completed	Collaborator has submitted the configuration back to the sales rep.
Accepted	The Sales rep has accepted the configuration and has merged with the parent cart.
Cancelled	The Sales rep has cancelled the collaboration request.
Abandoned	The Sales rep has abandoned the cart.
Deleted	The Sales rep has deleted the line item from the cart.

The collaboration status depends upon the access permissions defined by the administrator. The actions available on the Collaboration pop-up also differ based on permissions. For more information on how the access permissions defined by the administrator impact the collaboration status and the actions on the popup, see Enabling Quote Collaboration in the Org.

The following topics describe the various aspect of Quote Collaboration flow:

- Assigning the Configuration to the Collaborator or Queue
- Working on the Configuration Request
- Merging the Configurations in the Parent Cart
- Use Case: Quote Collaboration for Products Auto-Included by Constraint Rules

Assigning the Configuration to the Collaborator or Queue

As a Sales Rep, you can assign a bundle as well as a standalone product to the collaborator. You can assign a collaboration request to a User or a Queue from the Cart page. The Users and members of the Queue receive an email notification about the request. After assigning the collaboration request, a record is created in the Product Configuration section on the Quote Detail page with the status as *In Collaboration*.

> ⓘ **Limitation**
>
> The collaboration feature supports a maximum of 5 products in the cart simultaneously.

> ⓘ The administrator must define proper **Read**, **Create**, **Edit**, and **Delete** permission to give the user access to the Quote Collaboration feature. For more information on permissions, see Enabling Quote Collaboration in the Org.

To assign the collaboration request

1. On the Cart page, you can send one or multiple line items simultaneously:
   a. To assign a single line item: Click the Collaboration icon ( ) for the corresponding line item.

> ⓘ CPQ displays the collaboration icon (👥) next to an auto-included standalone or bundle line items if the *APTS_EnableCollabForAutoIncludedLines* is set to True. If you initiate a collaboration request for the parent product, CPQ automatically adds auto-included products as part of the collaboration. You can also create a collaboration request for auto-included products independent of the parent product. CPQ does not support collaboration request creation for auto-included option products; in this case, you must send the parent bundle for collaboration. For more information, see Use Case: Quote Collaboration for Products Auto-Included by Constraint Rules.

b. To assign multiple line items: Select the line items you want to send and click the menu icon (⋮) and click the **Product Collaboration** button.

> ⓘ CPQ does not support miscellaneous and primary line items auto-included through constraint rules for Quote Collaboration. CPQ disables the **Product Collaboration** button if any of the primary line items you selected is auto-included.

2. When you click either the collaboration icon or the **Product Collaboration** button, Quote Collaboration pop-up is displayed. Under the **Assignment Details** tab, specify the following information.

Field Name	Description
Owner ID	Select *User* or *Queue* to whom you want to assign the configuration. In the **Select User** dropdown, search and select the user or queue. > ⓘ Only the users with **Edit**, **Delete** or **Modify All** access are displayed in the drop-down list. The owner ID will be defaulted as *User* or *Queue* if the administrator has configured admin setting named, APTS_DefaultCollaboratorType.

Field Name	Description
Collaboration Type	• *Peer-To-Peer*: Select this to get users from the same business units to collaborate on a configuration. In peer-to-peer collaboration type is selected, the entire line item is sent over in the collaboration request. • *Multi-Tier*: Select this to get users from different business units to collaborate on a configuration. When you use the multi-tier collaboration type, only specific fields in the line items are sent in the collaboration request. Ideal for situations for which creating a cost structure is necessary when using transfer price mapping or any other collaboration scenario that requires a specific update of certain fields.
Specifications	Specify the information that you want to convey to the collaborator in this text box.
Start Date	Specify the start date by which the collaborator should start the configuration.
Completion Due Date	Specify the completion date by which the collaborator should submit his configuration.
Priority	Specify the urgency of this request.
Grant Access to Merge Cart (Read-Only)	Select this check box to allow the collaborator to view the entire cart in a read-only mode. This can be useful when you want the collaborator to see the entire cart to gain a better understanding of the overall offering. This functionality is yet not implemented.
Attachments	Attach the additional documents or images.

> ❗ Do not click **Cancel** on the Quote Collaboration pop-up just to close the pop-up. Use the cross icon(X) at the top of the pop-up to close. The **Cancel** button cancels the collaboration request itself and the collaboration record is deleted.

3. Click **Notify Collaborator(s)** to send the notification email to the collaborator.

Take into consideration the following while assigning the collaboration request:

• You cannot assign a line item to multiple collaborators. For example, you assigned a line item to Collaborator A. Now, if you select multiple line items and assign them to Collaborator B, including the one already assigned to Collaborator A, CPQ skips the

one assigned to Collaborator A and assigns the remaining line items to Collaborator B.

- You cannot finalize or approve the Cart until you close or cancel all the collaboration requests. If the collaboration is sequential, all the collaboration requests must be closed.

After the collaboration request is assigned, the name of the assignee is displayed below the collaboration icon ( ). Click the assignee's name to open the Quote Collaboration pop-up. The following functionalities are available to you on the pop-up:

- The status of the collaboration request at the top of the pop-up.
- The line items assigned to the collaborator under the tab **Assigned Products**.
- You can update the collaboration request and send that to the collaborators using the **Update** button. For example, you can change the user or queue and reassign the request to someone else, you can change the priority, or change the specification.
- You can communicate with the collaborator using the Salesforce Chatter under the tab **Chatter**.
- You can cancel the request altogether, thereby revoking the Collaborator's access to the line items completely. Canceling the collaboration request deletes all the records on the Quote Details page and the Collaboration Request tab, that are created for the collaboration request. Canceling also resets the product configuration status from *In Collaboration* to *Saved*.

> ⚠️
> - If merging more than five products, a background process is initiated, prompting users to close the cart.
> - You will receive an email notification on completion of the task.

You can add products to an existing collaboration request using a global method. For more information, see Adding Products to a Collaboration Request.

Once you have assigned the collaboration request, the collaborator can start working on the assigned configurations as explained in the Working on the Configuration Request section.

Working on the Configuration Request

As a Collaborator, you will receive a notification when the Sales Rep assigns a collaboration request to you. If the Sales Rep assigns you the collaboration as User, you can directly configure the collaboration request. Whereas, if the collaboration request is

assigned to you as a member of the Queue, you must claim ownership of the collaboration request. After you have been assigned the request, you can start working on the configuration. When you finish working on the configuration, you must submit the configuration back to the Sales Rep.

You can access the collaboration request in the Collaboration Request tab in All Tabs. The Collaboration Request Detail page holds all the information about the configuration sent by the Sales Rep such as Collaboration Status, Specifications, Priority. You can open the configuration in the Cart using the **Configure Product** button.

> ⓘ Unless you own a particular Collaboration Request, you cannot see the Configure Products button on the detail layout. Even if the Collaboration Request is assigned to a Queue and the currently logged-in User is a member of that Queue, he does not see the **Configure Products** button unless he accepts the collaboration request.

Taking ownership of the collaboration request assigned to a Queue

1. Go to **All Tabs** > **Collaboration Requests**.
2. From **View** drop-down, select the appropriate Queue and Click **Go!**.
3. Click the **Collaboration Request Id** to view the details of the configuration request.
4. In the **Collaboration Request Detail** page, use the **Owner** field to change the ownership from Queue name to the Collaborator username.
5. In the **Collaboration Request Detail** page, click **Configure Products** button under **Action** column to work on the configuration request.

To work on the collaboration request

You can work on the collaboration request sent to you by opening the configuration in a Cart. Follow the steps below:

1. Click the link provided in the notification email that you received
   or
   Go to **All Tabs** or click All Tabs icon(➕)> **Collaboration Requests**.
2. Click Collaboration Request Id to access the specific collaboration request.
3. Click the **Configure Products** button on the Collaboration Request Detail page to start working on the configuration assigned to you. You are redirected to the cart page to perform the configuration tasks.
4. Update the fields of the line item as you desire.

a. You can add, delete, and replace products in the cart including product for which the Sales Rep initiated the collaboration request.

b. You can further request another user or queue to collaborate on the configuration assigned to you and initiate a sequential collaboration.

> ⓘ If you initiate a sequential collaboration, you cannot submit the configuration until you close the collaboration request you initiated. Otherwise, the Sales Rep is not able to finalize the cart or send it for approval.
>
> For example, a Sales Rep assigns a collaboration request to you, which you further assign to Collaborator B. Collaborator B's completed configuration must be merged with your configuration, and your completed configuration must then be merged with the Sales rep's configuration.

5. Click **Submit For Merge** to submit the completed configuration back to the Sales Rep.

> ⓘ When the Sales Rep deletes a line item associated with a work-in-progress collaboration request, the corresponding request gets deleted automatically. Hence, you will not be able cannot access and continue working on the collaboration request even by clicking on the email link.

Once you submit the completed collaboration request, the Sales Rep can review and merge the configurations as explained in the Merging the Configurations in the Parent Cart section.

Merging the Configurations in the Parent Cart

As a Sales Rep, you will receive a notification when the collaborator submits the completed configuration. The collaboration icon displays a yellow exclamation mark after Collaborator submits the configuration. You can review the changes before proceeding to merge them with the original configuration. When you merge the configuration the line item in the original configuration is overwritten by line item in the Collaborator's configuration. If the changes made to the configuration submitted by the Collaboration are not acceptable, you may reject the request for collaboration request by cancelling it.

If the Collaborator has replaced the line item from the configuration, the old line item is deleted from your cart and a new line item is created in its place when you merge the collaboration request. If the Collaborator added a new product, a new line item is created on the Cart. You can delete a line item after the collaboration request is closed, the copy of configuration the Collaborator has from the collaboration request is updated accordingly.

After all the collaboration request is closed, you can finalize the cart.

To merge the collaboration request

1. Click the collaboration icon ( ) for the line item the Collaborator worked on to open the Quote Collaboration pop-up.
2. Review the changes under the **Assigned Products** and **Completed Configuration** on the pop-up. Click **More Details** to view the configuration in read-only mode.
3. Perform any one of the following actions:
   a. Click **Merge** to accept the configuration submitted by the collaborator and to merge the line item with the original configuration.
   b. In case if further collaboration is required, you can update the fields in the configuration, and on the Quote Collaboration pop-up click **Update** to assign the collaboration task back to the collaborator. This is useful in a scenario when you are negotiating a transfer price or you need to further request additional changes in the configuration submitted by the collaborator.
   c. You can change the user and assign the collaboration request to someone else.
   d. If the changes are not acceptable, click **Cancel** to cancel the collaboration request.

As a Sales Rep, you have the ability to make changes to the configuration request details and you can re-submit the same configuration to the same collaborator or to someone else, without losing previously merged configuration. When you change the configuration request owner and re-assigns the same configuration to someone else, the previous collaborator receives the cancellation notification email.

ⓘ   When you update a **Completed** or **Merged** configuration, the status of such collaboration request reverts to **Submitted**, and the Collaborator receives an email notification.

While using Cost and Profitability functionality with Quote Collaboration, if the collaborator and the Sales Rep are from different business units and the collaborator sends a price which becomes one of the cost elements of the Sales Users cart and this price is negotiated, you must use multi-tier as the collaboration type. In Peer-to-peer collaboration, the only difference is that the merge copies over entire line items rather than merging field values based on transfer price map and merge field set.

Consider that a parent cart has a product and that product is already collaborated by the Collaborator. Originally collaborated line item should get merged as per the transfer price map and merge fieldset. The child cart now has one line item containing the product. If the Quote Collaborator added the same line item and performs a merge operation, the line

item would be overridden during the merge operation. After the merge operation, if two line items have the same product, and the collaborator performs a merge operation, the line items are saved as individual records.

Use Case: Quote Collaboration for Products Auto-Included by Constraint Rules

This section provides use case and explains how you can assign auto-included lines items for collaboration.

CPQ displays the collaboration icon ( ) next to an auto-included standalone or bundle line items if the *APTS_EnableCollabForAutoIncludedLines* admin setting is set to True. If you initiate a collaboration request for the parent product, CPQ automatically adds auto-included products as part of the collaboration. You can also create a collaboration request for auto-included products independent of the parent product. CPQ does not support collaboration request creation for auto-included option products; in this case, you must send the parent bundle for collaboration.

Prerequisites

- The *APTS_EnableCollabForAutoIncludedLines* admin setting is set to True.
- An Inclusion constraint rule is configured so that Product A auto-includes Product B and Product C.

Use Case 1: Create Collaboration Request for Product A

1. You select Product A and create a collaboration request for it.
2. While creating a collaboration request for Product A, CPQ automatically adds Product B and Product C as part of collaboration.
3. Collaborator verifies Product A with Product B and Product C in the collaborator cart.
4. Collaborator makes necessary changes to Product A, B, C and resubmits the configuration for merge.
5. After you merge the configuration, changes to Product A , B, C are updated in the main cart.
6. You can verify Product A, Product B, and Product C in the main cart.

Use Case 2: Create Collaboration Request for Product B, C, or Both

1. You select Product B, Product C, or both and create a collaboration request for them.
2. Collaborator verifies Products B, Product C, or both in collaborator cart.
3. Collaborator makes necessary changes to Product B, Product C, or both and resubmits the configuration for merge.
4. After you merge the configuration, changes to Product B, Product C, or both are updated in the main cart.
5. You can verify Product A, Product B, and Product C in the main cart. The merge does not impact Product A in the main cart.

Use Case 3: Create Collaboration Request for Product A where Collaborator Deletes Auto-Included Products

1. You select Product A and create a collaboration request for it.
2. While creating a collaboration request for Product A, CPQ automatically adds Product B and Product C as part of collaboration.
3. Collaborator verifies Product A with Product B and Product C in the collaborator cart.
4. Collaborator makes necessary changes to Product A, deletes Product B, and resubmits the configuration for merge.
5. After you merge the configuration, changes to Product A are updated and Product B is deleted from the main cart. CPQ displays a constraint rule message for Product B.
6. You can verify Product A, Product B, and Product C in the main cart.

Use Case 4: Create Collaboration Request for Product A, Product B, and Product C

1. You select Product A, B, and C and create a collaboration request for them.
2. While creating a collaboration request, CPQ does not automatically add Product B and Product C as part of collaboration because you have manually added them.
3. Collaborator verifies Products A , B and C in the collaborator cart.
4. Collaborator makes necessary changes to Product A, B, and C and resubmits the configuration for merge.
5. After you merge the configuration, changes to Product A, B, are C are updated in the main cart.
6. You can verify Product A, Product B, and Product C in the main cart.

Working with the Mini-Cart

The Mini-Cart provides you a brief overview of all products that you configured from the

product catalog. When you click the cart icon ( ) on the toolbar, the following functionalities are available for you on the Mini-Cart.

- The wrench icon ( ) next to the product name navigates to go the Configuration page of the bundle product or a product with attributes.
- To remove a selected product, click the delete icon ( ) on the Mini-Cart.
- The **Net Price** is calculated based on the product configuration. The **Grand Total** is the sum of the net price of individual products.
- The **View Cart** button navigates to the Cart page.
- Click **Finalize** to finalize the configuration and go to the quote/proposal page. If there are any validation errors due to the configuration of products, constraint rules, or pricing rules, the Confirm Finalization window is displayed prompting you to confirm whether you want to finalize the cart, with warning messages.
    - Click **OK**. The cart is finalized.
    - Click **Cancel** to resolve the errors.

Working with the Cart

This chapter describes how to work with the Cart.

Viewing the Cart in Grid View

The shopping cart has been redesigned to provide better usability and accessibility to the sales representative.

Following are the key changes that you can see in the shopping cart:

- **Displaying cart level actions on top-right corner:** A system displays the primary cart level actions on the top right corner of the page with **Finalize** action as a default. The other user actions such as **Reprice**, **Apply Promotion**, **Analyze Quote**, **Submit for Approvals**, and so on are made available based on the user scenarios. The user actions that are grayed out show an info icon next to them, providing a reason for non-availability for selection. You can customize the primary and secondary buttons. For more information, see Configuring Display Action Settings.
- Action buttons, such as **Add More Products**, **Installed Products, Reprice**, **Finalize**, **Submit for Approval,** and more are available as picklist values.
- Mass actions, such as **Delete Product**, **Save as Favorite**, **Mass Update**, **Product Collaboration** at the line item level are available as picklist values. The Copy action is available at the cart header level only, which you can use to copy a single line item or perform mass updates. Any change using Mass Update performs the calculation on the client-side for faster execution.

  > ⓘ
  > - The UI grid allows you to select up to 50 items without scrolling. To select all items, scroll down and then check the group checkbox.
  > - For Enterprise Carts in Turbo Integration mode, if the number of line items in the cart exceeds the Large Cart Threshold under Config System Properties, then the resequencing of line items, when we remove products from the cart, is not done by default. In such instances, the administrator must manually call the Apttus_Config2.CartService.updateLineSequence

> API before finalizing the cart. CPQ saves all the custom fields that are used as line item fields deleting the cart line items before saving or repricing the cart.

- Easy and type-ahead search functionality on the top of the line item table.
- A Quick view of the **Grand Total** amount on the top-right corner. Also, **Show Totals**, **Total Adjustments** are displayed on the page header. The right arrow next to Grand Total shows you the detailed calculations at the line item level.
- If there are two custom fields on Summary Group and one custom field (field A) is dependent on another custom field (field B, where you provide your input) for its value, even if you pass a value in field B and reprice the cart, CPQ does not recalculate field A.
- The **Edit** and **View** buttons in the menu under the proposal name enable you to edit and view the Quote details respectively.
- Bundle cart line items with expand/collapse functionality. The administrator can disable the functionality at the product level.
- **Auto-Inclusion with Line Item**: Auto-included products are marked with icon in the cart. The icon is visible on standalone items, bundles, and optional products. For more information, see Configuring Inclusion Rules.
- A spinner is displayed on the cart header to indicate the progress of any rules/adjustments that are being executed in the background. Warnings and error messages, if any, are displayed at the top of the Cart page. In the case of multiple constraint rules errors, a number list of messages is displayed.
- Infinite scrolling for line items to avoid the need for pagination.
- Column headers are always available on the top while scrolling. Non-numeric fields are center-aligned and numeric fields are right-aligned. You can adjust the width of the columns by dragging the right-hand side border. However, if you refresh the page or relaunch the cart the column widths are set to default.
- Editable fields and actions on hover.
- Support for different data types for columns, such as Text, Picklist, Lookup, Date, Hyperlink Formula, Hyperlink Image Formula, Image, Formula, and more.

> By default, CPQ pre-populates values in lookup type fields on the Cart page. If the administrator has not enabled the **Enable Quick View** setting, you must search for values by clicking the search icon next to the lookup field on the Cart page. For information refer to Configuring Custom Settings.

- **Support for Deal Guidance:** For a product that you configured on the cart page, the system displays a Pricing Guidance pop-up for a customer deal. On the Guidance column when you hover your mouse on a green circle, it pops up a screen with some

guidance parameters.

> ⓘ On the Cart page, the Pricing Guidance pop-up does not display values for the **Price From** and **Price To** columns if the deal guidance rule has a custom measure.

- **Ability to apply mass adjustments for options without applying adjustments on bundle:** You can apply the mass update on the option and bundle products separately. A new check box design has been implemented that depicts how you can choose to apply the mass adjustments on bundle, option or both.
  On the bundle level, when you click for the consequent times and click **Mass Update**, you see the following behavior:

Click number	Check box design	Behavior
First	Solid square box ◼	The mass updates are applied only to the bundle product. Sub-bundle products also behave as bundle products.
Second	Minus sign ➖	The mass updates are applied only to the option products.
Third	Checked sign ✔	The mass updates are applied to both, the bundle and option products.
Fourth	Empty check boxes	The mass updates are not applied.

- Support for long product name, column text, and charge names.
- **Providing client-side computation facility**:
  - On Cart Grid when custom setting Enable Auto Reprice is set to ON, and you change any Quantity on cart line item, the pricing fields such as Extended Price, Net Price for the specific row are updated.
  - Calculate totals (by charges and frequency) and grand totals
  - Calculate subtotals for category
- **Providing bundle rollup for cost and price**: Rollup line gets updated when the individual line's price gets changed and any discount is applied on the summary line when any individual lines get updated.

- **Support for removal of price list items for the existing quotes:** Whenever you have a PLI removed from an active quote, the system notifies you and removes the item automatically.
- **Eliminating the additional pricing spinner:** When the pricing has been completed on the catalog or config page, the system does not show spinner on the cart grid page.
- **Recalculating the end date of one-time fee:** Based on the start date and the selling term, the end date for a one-time price type is re-computed when you delete it in the cart.

- **Calculating the selling term of recurring fee:** When Price Type = Recurring, CPQ calculates the selling term on the cart as follows:
  - If the cart line item has start date and end date (but the Default Selling Term is not defined on the PLI), CPQ calculates the selling term based on the start date and end date.
  - If the Default Selling Term is defined on the PLI (but the cart line item does not have start date and end date), CPQ calculates the selling term based on the default selling term.
  - If the default selling term is defined on the PLI and the cart line item also has start date and end date, CPQ gives precedence to the start and end dates, and calculates the selling term accordingly.
- Showing sub totals and totals sections: The Cart Grid UI shows subtotals and totals section at the bottom of the cart page based on the setting called **Enable Contextual Totals**. For more information, see Config System Properties.

- **Providing an indicator for line item approval:** If you make updates to a quote/ proposal, the system displays an indicator "Approval Required" for the line item on the cart page.

- **Reordering of primary lines on the cart:** You can drag and drop the primary line items on the cart using the hand icon that helps you sort the products.

- **Cancelling the order line items**: While amending an in-flight order, you can cancel one or more order line items from the cart that are not yet fulfilled (orders with pending and in-fulfillment status).

- **Improved User Experience for Adjustment Amount field**:

  CPQ displays a blue bar when you click or hover over the **Adjustment Amount** field on the line item or **Totals** section in the cart page. This feature improves the user experience by highlighting the **Adjustment Amount** field in order to make it noticeable during an edit mode.
- **Three Columns in the left section of the Cart Grid**

- The left side of cart grid is limited to three line items fields.
- When you create a new cart view and try to drag the fourth field into the third section, it moves that field to the middle section.
- When you create a new cart view as an admin, you can see the same behavior as a general user creating a cart view.
- **Hiding Secondary Action Buttons upon Hard Revalidate**: Upon hard revalidation of the quote by changing the product version, CPQ hides the secondary action buttons on the cart that are part of Display Action Settings. For example, Add More Products, Installed Products, Add Miscellaneous Items, Reprice, Finalize, and so on.

- On the configuration page at the **Summary** section, the **Hide Option Groups** link is disabled when no product option is selected.
  For example, while you are configuring a quote, you do not want to include option groups that are associated with the product. In that case, you want to finalize the quote and add the product on the cart without any options. Hence, the Product Summary section needs to hide or disable the Hide Option Groups link, which is irrelevant in this scenario.
  Suppose you are providing a quote of an internet plan to a customer which has no installation fee and router charges for the festival season. In that case, you can configure this product without the options, namely Installation Fee and Router Charges.

You can resize the first column and change the sequence of the columns (by dragging the line items vertically). For more information, see Configuring Display Column Settings.

Please keep in mind the following pointers for icons/action buttons when using the new grid view:

- Copy, Remove and Product Collaboration – these icons/action buttons are available when all the selected line items are primary line items. Else the icons are grayed out.
- Mass Update – this is available for both, primary and secondary line items, except you have separate configurations such as **Quantity** = *Read Only*.

Required Configuration

This functionality can be achieved by a simple configuration of creating a new flow with the Cart page name as *Apttus_Config2__Cart#cartgrid*. You must then specify the flow name in your **Configure Products** button to view the new UI for the shopping cart. For more information, see Configuring Flow Settings and Creating Custom Buttons for Different Flows.

ⓘ For more information on the service cart, see Working with the Service Cart.

> For more information on the cart views, see Managing Cart View

Managing Cart Views

Similar to Salesforce views, the cart grid supports Cart Views containing predefined filter values on the cart. These views help you filter and display cart line items as per your configurations. You can set the custom views based on many parameters such as product, color, and location, using the **Create New View** pop up.

To create Cart Views

1. On the Cart page, click view drop-down. **Create New View** pop-up is displayed.
2. Select a value in the **Group By** field. The default value of the **Group By** fields is *Product*.
3. Enter a name in the **View Name** field.
4. Select **Set as Default** checkbox to make the view default. If you select this checkbox then the administrator view is overridden.
5. Go to **Choose Cart Columns** tab.
6. Drag and drop the columns that you want to display for the view of the cart from the left-hand side list to the right-hand side list.
7. Click **Save**.

By default, you can create a new view, edit and delete views. When you delete a view, the record is deleted from your flow but does not get removed from the list of views. This means that your view is still visible to other flows.

You can create Cart Views with the Advanced Filters as well. To create a view with the Advanced Filters you must apply the filters to the line items in the Cart and select the **Save with Filters** checkbox when you create the cart view.

Required Configuration

For each view that you create, you must ensure that your administrator has listed your flow name as a picklist value in **Config Settings object > Flow picklist field**. If your administrator has not listed the flow name in this picklist field, you would be allowed to create a new view but would not be able to save the view. Also, after your administrator has listed the flow name in this picklist field, you can view and use all the views created by different users, provided the flow names are listed in the Flow picklist.

The columns displayed in your view are mapped with your flow. You can edit the columns using Display Column Settings. You can modify the group-by fields by listing the API names of the desired fields in the **Groupby** field available at **Setup > App Setup > Develop > Custom Settings > Config System Properties > Manage > System Properties**.

Applying Advanced Filters on the Cart

Advanced Filters are real-time filters that you can define on the cart. After you add products to the cart you can filter them to find particular products on the Cart page. If you have applied Cart Views on the Cart page, you can use Advanced Filters functionality to narrow the results further. You can save the filters you defined by selecting the **Save with Filters** checkbox when creating Cart Views.

To apply advanced filters

1. Go to Cart page.

2. Click the Advanced Filter icon(　　). A dialog box is displayed below the icon.
3. Enter the following details and click **Apply.**

Options	Description
Field	Select the column based on which you want to filter the line items. ⓘ You can only apply filters to the column defined in the default cart view.
Operator	Select a comparison operator.
Field Value	Enter the value of the column you selected in **Field**. ⓘ If you select Field that is of type lookup with Lookup Field Settings, CPQ only displays the list of values that are saved in at least one line item configuration in the Cart.
Consider Only Parent Lines	Select the checkbox to filter the line item based on standalone and bundle line items. The options line items are not considered in the filter.

Options	Description
Select All Qualified Lines	Select the checkbox to select the line items that fulfill the filter criteria. CPQ only selects line items on the current page in a paginated cart. You must navigate through other pages to allow CPQ to select qualified line items on those pages.

After you apply the filters, the line items are displayed based on the criteria. A counter is displayed next to the Advanced Filter icon that denotes the number of primary line items that fulfill the filter criteria. On the Advanced Filter dialog box, click **Clear All**, to remove the filter.

Advanced Filters on the cart feature has the following limitations.

- Filters are not applied on Line Item fields of the following types
  - Multi-select Picklist
  - Actions
- 'OR' operator is not supported. 'AND' operator is implicitly applied when you add more than one filter condition.

> ⓘ The filters applied on the cart are saved only in the main memory, which means that after applying filters if you navigate to another page, the filters are lost when you come back to the cart. However, if filters are saved in some custom view which is set as the default view then the cart will be loaded with this default view each time with the filters applied on the cart.

Managing Mass Update of Product Fields

Mass update allows you to bulk update fields, such as quantity, adjustment type, and adjustment amount for multiple products at a time. You can mass update standalone, bundle, and option line items on the Cart page. You can manually select line items to mass update or select them using Advanced Filter on the Cart page. Refer to *Applying Advanced Filters on the Cart*. However, CPQ does not apply mass updates to rollup line items even if you select them.

To mass update product fields

1. From the cart page, select the desired product(s) and click **Mass Update.** The UI grid allows you to select up to 50 items without scrolling. To select all items, scroll down and then check the group checkbox.

   > ⓘ A counter is displayed on the Mass Update popup which indicates the total number of line items you selected for mass update.

2. In the Mass Update popup, specify the desired value for the fields and click **Apply**.

By default, you see the following fields in the Mass Update popup.

- Quantity
- Adjustment Type
- Adjustment Amount

You can either specify the value for a field or select the **Reset** checkbox. Mass Update will override any existing user-entered value. If you keep a specific field blank and click **Apply**, no action is taken on that field. When you select the **Reset** checkbox, the field is updated with the CPQ default value. For example, when you reset the **Quantity** field the value is updated to *1*. However, if you reset **Start Date** or **End Date** fields, the values are updated to the values from the Quote Details page.

> ⓘ - To customize the fields displayed in the Mass Update popup, admin can navigate to **Config Settings > Display Column Settings**. Select *Mass Update* from the **Display Type**, and relevant flow from **Flow** dropdown.
> - You need to ensure that **Allow Manual Adjustment** for the corresponding PLI is set to *True*.
> - You should not use Mass Update along with Multiple Adjustments.

About Cart Locking for Concurrent Access

When you edit a cart, use cart locking to lock out all the Sales reps with concurrent access.. The other Sales reps can only view the cart in read-only mode. The cart is unlocked when you save, finalize, abandon, or close the cart. Sales reps in read-only mode can gain edit access only after these operations are performed. Cart locking helps prevent data loss while you are working on a configuration.

If you leave the cart idle for a predefined time limit, the cart is unlocked automatically. The cart is considered idle if you do not perform changes to the line items. Changes include

updating a value, deleting line items, or adding line items. Other actions on the cart such as updating cart views, viewing the totals, or applying filters are not considered modifications to the line items, and time spent is counted as idle time. The time limit is defined in **Cart Edit Access Idle Timeout in Minutes** in Config System Properties. After the time limit is exceeded, the cart is unlocked allowing any Sales rep to open the cart in edit mode, locking the cart while that Sales rep is edits it.

> ⓘ Ensure that your administrator has configured the necessary custom setting before using Cart Locking. For more information, see Enabling Cart Locking for Concurrent Access.

While you are in edit mode, if another user requests control by clicking **Request Edit Access**, you are notified through an email with the message: " `<<user in read-only mode>> has requested to edit the cart. Would you like to grant access?` ". The field **Current User** in the Product Configuration object contains the ID of the sales rep currently accessing the cart in the edit mode. In edit mode, after you save, close, finalize, or abandon the current cart, an email notification is sent to the Sales reps who are waiting to get the edit access to the cart.

Email notifications are sent in the following format:

Action on the cart	Email notification content
Claim Edit Access	User <<name in read-only mode>> has requested edit access to <<proposal name>>. To grant this user with access, please either: save, close, finalize, or abandon your configuration.
Save or Close	<<User name - edit mode user>> is done configuring. You can claim edit access to the cart by clicking the **Claim Edit Access** button on the cart.
Finalize	<<User name - edit mode user>> has finalized the configuration. You can now view and edit this finalized version by clicking the **Claim Edit Access** button on the cart.
Abandon	<<User name - edit mode user>> is done configuring. You can claim edit access to the cart now by navigating to the quote header page and clicking **Configure Products**.

About Smart Cart

The Smart Cart feature allows you to manage the cart with a large number of line items. In the Smart Cart flow, line items are priced in groups that are divided based on the threshold and split criteria. The threshold defines the number of line items in a group. The split criteria list the fields based on which the line items are grouped. The threshold and split criteria are defined by the administrator in **Split Cart Threshold** and **Split Cart Criteria Fields** settings respectively, in Config System Properties.

Like the regular cart, in the Smart Cart flow, you can configure and add products to the cart. Once you add the products to the cart, you can use the pricing functionalities like adjustments, tiers promotions to adjust the pricing of the line items. Submit the cart for pricing after you finish applying all the adjustments. Click **Submit for Pricing (Async)**. Pricing of the line items in the Smart Cart flow is processed differently than the regular cart. For more information, see About Smart Cart Pricing.

Once the pricing is calculated, finalize the cart. After the finalization, a hierarchy of configurations is generated within your quote. The quote consists of the Main Configuration, a Config Configuration, and Pricing configurations. The Main Configuration consists of the Config Configuration and the Config Configuration lists all the Pricing Configuration. The Pricing Configurations represent the groups that are created based on the threshold and the split criteria. Each Pricing Configuration consists of the proposal line items the belong to that particular group.

You can reconfigure the finalized cart. In the Smart Cart flow, when you reconfigure a finalized cart, CPQ uses the saved product configuration to build the cart again.
Any changes you make to the cart are stored in the same configuration. The saved configuration is not superseded with a new copy of the configuration. You can sync the cart lines with the opportunity using the **Synchronize with Opportunity** button after generating the quote.

To enable the Smart Cart flow

To use the Smart Cart feature, on the Quote details page, set the field **QTC Profile** to *Split.* When you make this change, CPQ switches to Smart Cart flow.

Smart Cart feature does not support the following functionalities:

- Analyze Quote
- Asset-based operations such as Renew, Change, Swap, Terminate
- Constraint Rules are only supported in client-side execution mode

- Cost Model
- Creation of Assets
- Deal Guidance
- Favorite Catalog
- Line level Approval and Cart-Level Approval (Product Configuration Approval)
- Order Generation
- Order Management Amend, Cancel operations
- Related Pricing
- Sales & Summary group Promotion
- Service CPQ
- Total level discounting
- Default Document Generation

Tasks Available in the Smart Cart Flow

You can perform the following tasks in a Smart Cart flow.

- Filter and search products on the Catalog page.
- Configure the products from the Catalog page.
- Add products to that cart. You can also, add multiple products to the cart simultaneously.
- View the mini cart.
- Search for products by name on the Cart Page. You can apply advanced filters to narrow the search further.
- Add more products. When you click **Add More Product** button and you are redirected to the Catalog page.
- Configure the line items on the Cart page.
- Copy and delete a line item.
- Apply a mass-update on the line items.
- Edit all the editable columns.
- Apply adjustment or multiple adjustments.
- Send the quote for collaboration.
- Execute pre-pricing logic. Click the **Pre-Price** button on the menu.
- Submit the cart for pricing by clicking the **Submit for Pricing(Async).**
- Execute post-pricing logic. Click the **Post-Price** button on the menu.
- Reprice the cart.
- Save the cart.
- Abandon the cart. By default, the configuration is deleted from the Quote details page. To retain a copy of the configuration your administrator must enable the **Keep**

Abandoned Carts setting. For more information, see **Config System Properties** section in Configuring Custom Settings.

- Finalize the cart.
- Reconfigure the cart.
- Revalidate the cart.
- Sync proposal line item with associated opportunity. Click the **Sync with Opportunity** button on the Quote Details page. The administrator can also enable auto-sync as well.
- Generate and send the proposal. You can also use Doc Gen functionality to generate and send proposals.
- Accept the proposal.
- Clone a quote in Smart Cart. Click the **Clone(with Line Items)** button on the Quote Detail page. The new cloned quote retains all the information of the parent quote, including:
    - Proposal header details
    - Product Configurations

    ⓘ When you clone a finalized quote, Proposal Line Items are not cloned.

- Create agreements with line items in Smart Cart. Click **Create Agreement With Line Items** on the Quote Detail page. The agreement is created along with agreement line items. The time taken to create such an agreement depends on the number of line items in the quote. The agreement is automatically finalized and **Is Task Pending** flag is set to *false* after creation.

About Smart Cart Pricing

In the Smart Cart flow, CPQ allows you to run pre-pricing logic before you submit the configuration for pricing, provided that your administrator has defined pre-pricing logic. Pre-pricing feature executes any custom logic defined by the administrator to be executed before any pricing actions. Pre-pricing is used to define any fields that are needed to be predefined before pricing is calculated. Click the **Pre-Price** button on the menu.

After the pre-pricing logic is executed, click **Submit for Pricing(Async)** button on the Cart page to calculate the price. After you click **Submit for Pricing(Async)**, **Net Price** is calculated and the total is displayed next to the corresponding line item. If you change any fields that are used in pre-pricing logic or you add new line items to the cart that requires pre-pricing, you must execute pre-pricing again.

After the pricing is complete, you must run post-pricing logic, if your Administrator has defined a custom post-pricing logic. Post-pricing uses the pricing fields like **Net Price** and **Net Extended Price** which are calculated after you submit the configuration for pricing.

Click the **Post-Price** button on the menu. If any of the pricing fields are changed after post-pricing, you must execute post-pricing again.

After you add products to the cart and if the pre-pricing and post-pricing logic are defined, all the pricing and finalization actions like **Submit for Pricing (Async)**, **Post-Price** and **Finalize** are disabled on the menu. The buttons are enabled one by one as you perform the corresponding actions. For example, before you can submit the configuration for pricing you must execute pre-pricing logic, then all the buttons except **Pre-Price** are disabled. Once you pre-price the cart, **Submit for Pricing (Async)** is enabled but the **Post-Price** and **Finalize** buttons are still disabled. After you click **Submit for Pricing (Async)** button and pricing are complete, **Post-Price** is enabled. And only after post-pricing, **Finalize** is enabled. In the scenario when you update a field after pricing that requires pre-pricing, all the buttons except **Pre-Price** are disabled. The only buttons that are always enabled are **Save**, **Abandon** and **Close**.

Pre-pricing and Post-pricing logic are automatically executed if your administrator has configured the settings in *Config System Properties*.

After the pricing is complete, you can finalize the cart and see that a hierarchy of configuration is generated on the Quote Detail page.

Pricing Products

In the Pricing stage, you can price the selected products and apply adjustments such as markup value, discounts, and more from the Cart page.

You can choose to view the cart in the normal UI or grid UI. The functionality and buttons remain the same, only the orientation and spacing of columns and buttons are different in both the UI.

You can perform the following actions:

Action	Description
Add More Products	Return to the Catalog page to add more products.
Installed Products	Select products from a list of products that have been purchased and associated with the account associated with the proposal. This enables you to select products directly that are previously purchased by the account.
Add Miscellaneous Item	Add any miscellaneous charges that are not SKU related such as shipping charges or sales tax to the quote.
Reprice	To recalculate the manual pricing adjustments.
Review & Finalize	Proceed to the final stage of configuration.
Submit for Pricing (Async)	Submits the cart for async pricing. When you click the button, you can perform one of the following actions: • **Do Not Submit**: Click this to cancel the cart pricing. • **Submit & Go To Proposal**: Click this to submit the cart for pricing and return to the Quote Details page. You will receive an email notification after the pricing is completed. • **Submit & Stay On Cart**: Click this to stay on the cart while CPQ completes the pricing is processed. The Cart becomes read-only while the pricing is processed.
Save	Saves and changes the status to Saved, if status did not equal to Saved, Pending Approval or Ready for Finalization. You may return to the specified return URL or proposal object. For example, if you came to arrive on the cart from the Opportunity, the system will return to the Opportunities page.

Action	Description
Quick Save	Saves and changes status to Saved if status did not equal to Saved, Pending Approval or Ready for Finalization. You stay on the same page
Save & Reload	Saves and changes status to Saved if status did not equal to Saved, Pending Approval or Ready for Finalization. Reloads the Cart by re-querying the Product Configuration and setting the cart to show the first page, by doing this it runs Pricing.
Edit Price Agreement	Enables you to add and set prices for a product that are associated with your contract. When you renew or regenerate a catalog from your contract the defined price agreement prices are applicable.

The following are the key fields in the Summary tab and their descriptions:

Fields	Description
Actions	You can see the one or more of the following icons: • Click **Configure** to configure a bundle option within a bundle. This offers increased control over product selection, as well as making it easier to select products as selecting one bundle full of products can replace having to select those products separately. • Click **Copy** to clone a bundle with attributes, options, and pricing and make modifications as needed and save it as another bundle. • Click **Remove** to remove a product from your current selection.
Totaling Group	The group used for a line item in the Totals view.
Product	The selected product.
Charge Type	The relevant charge type for a product. A product can have multiple charge types such as License Fees, Implementation Fees, and more.
Base Price	The base, or starting price of a product. This is the List Price with any line item automatic adjustments applied.

Fields	Description
Option Price	The sum of the Adjusted Price of the options that fulfil the following conditions: • Is optional = FALSE • Rollup Method = PER UNIT or BLANK • Price included in Bundle = FALSE • The charge type matches with the bundle line
Quantity	The quantity of product being quoted.
UOM	Unit of measure for the quantity field. Set up by the System Administrator per product/charge type.
Term	The selling term of the product, measured in Months, Days, Years etc.
Frequency	Whether the charge is One Time, Recurring, or Usage.
Extended Price	Base Extended Price + Flat Option Price + (Option Price * Quantity) ⓘ The Option Price is multiplied by the bundle quantity because *Rollup Method = PER UNIT* implies that the option quantity is per unit of the bundle.
Adjustment Type	Values for manual adjustments whether you want to apply discount or markup on the price.
Location	The location in which the said product will be available and delivered.
Adjustment Amount	Field to enter the amount or percentage of manual adjustment.
Adjusted Price	Extended Price + Line Level Manual Adjustments
Renewal Adjustment Type	Specifies the type of renewal you want to apply for an asset during renewal. Values are: *%Uplift* and *Uplift Amount*. Applying any value here shows the effect on asset renewal only. Ensure that you have an active Workflow executing asset pricing, else the price change will not appear in the Cart.

Fields	Description
Renewal Adjustment Amount	Specifies the actual amount of the value you have chosen in **Renewal Adjustment Type**. This amount is applicable when you renew an asset. Ensure that you have an active Workflow executing asset pricing, else the price change will not appear in the Cart.
Guidance	Specifies the percentage range within which you can adjust the amount. This amount can be the amount range by which a product can be marked up or discounted.
Net Price	Adjusted price with any category level adjustments applied.
Is Optional	Indicates if your line item is an optional one. This column works only when you have set **Enable Optional Items** to true in System Properties. Refer to System Properties topic for details.
Is Optional Rollup Line	Indicates if the price of the optional line item should roll up at the bundle level. This column works only when you have set **Enable Optional Items** to true in System Properties. Refer to System Properties topic for details.
Allocate Group Adjustment	Indicates if the line item is eligible for group adjustments. Set this to *true* when you want to allow group adjustments to be applied at the line item level also. Set this to *false* to lock a line item record and prevent manual and group adjustments. This functionality is helpful when your cart has many products and you want to prevent the sales representative from applying mass adjustments to certain products that are approved by your Sales Head. For such scenarios, you can lock these products on the cart.
Flat Option Price	The sum of the Adjusted Price of the options that fulfil the following conditions: • Is optional = FALSE • Rollup Method = FLAT • Price included in Bundle = FALSE • The charge type matches with the bundle line

The Show Duration link is for advanced functionality related to Pro-ration and co-termination of recurring charges. If this is setup for a price list item, then you can charge in a different frequency from what the price list item is defined in and set Start and End Dates and a Term. For example, a price list item may be a recurring yearly charge but on this quote, you may wish to charge only for 6 months.

In the **Shopping Cart** section, the price line items are further broken out to reflect pricing for any options associated with the bundle product.

The **Totals** section shows all Totals by product category and a Grand Total sum of one time plus recurring charges. The Totals tab also allows for a discount or markup to applied to a category as a whole and rolled down to the individual line items in that category. The system distributes the adjustments uniformly across each line item. If any automatic summary adjustments have been configured, they will also appear in this view.

Proposal Locations are defined to distinguish differentiate the products as per your customer locations.

On the cart page,

- The location drop-down list displays all the account and proposal locations.
- If your system admin has created any lookup filter criteria, the system follows the criteria and filters the locations accordingly.

To price a product on the shopping cart

You can edit any field for an added product on the cart only if the administrator has set requisite permissions for the Cart Detail View page.

1. In the **Quantity** column, you can change the quantity for a product. The values in the Quantity column for a product can be driven by the numeric expression builder configured for the selected product. You can click **Reprice** link individually to enable the system to recalculate the price considering the new quantity.
2. In the **Selling Term** column, you can enter a number to specify the term duration during which the product is sold.
3. In the **Frequency** column, you can select a frequency type. The frequency type is displayed for recurring charges.
4. From the **Adjustment Type**, you can select one of the following and enter a numeric value in the **Adjustment Amount** column:

Option	Description
% Discount	Select this and enter a discount percentage in the **Adjustment Amount** column. For example: If you enter 10 in the Adjustment Amount column, this implies that you want to give a discount of 10%.
Discount Amount	Select this and enter a flat discount amount in the **Adjustment Amount** column.

Option	Description
% Markup	Select this and enter a markup percentage in the **Adjustment Amount** column. For example: If you enter 10 in the Adjustment Amount column, this implies that you want to markup the price by 10%.
Markup Amount	Select this and enter a flat markup amount in the **Adjustment Amount** column.
Price Override	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter overrides the net price of the product.
Base Price Override	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter overrides the base price of the product and all the other calculations on the product would happen based on the new base price. **Allow Manual Adjustment** must be selected on the product line item, in order to make **Base Price Override** editable.
% Discount Off List	This is similar to % Discount; except it calculates the discount amount always on List Price of a Bundle and applies to Extended Price. ⓘ The option % *Discount off List* is not available by default. The administrator must add the value to the **Adjustment Type** field in the Line Item object. For more information, see Enabling Multiple Adjustments at the Line-Item Level.
% Uplift	This gets applied every time to products that are added from the Asset.
Price Factor	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter gets multiplied by the **Extended Price** to calculate the new **Net Price**.
Base Price Discount	Indicates that the adjustment amount is reduced from the Base Price.
Base Price Markup	Indicates that the adjustment amount is added to the Base Price.

Option	Description
% Discount (Bundle Only)	Select this and enter a discount percentage in the **Adjustment Amount** column. The value you enter applies a discount on the bundle without applying that same adjustment on the options within the bundle.
Discount Amount (Bundle Only)	Select this and enter a flat discount amount in the **Adjustment Amount** column. The amount you enter applies a discount on the bundle without applying that same adjustment on the options within the bundle.
% Uplift (Bundle Only)	Select this and enter an uplift discount percentage in the **Adjustment Amount** column. The value you enter applies an uplift to the bundle every time a product is added from the Asset.
% Markup (Bundle Only)	Select this and enter a markup percentage in the **Adjustment Amount** column. The value you enter applies a markup on the bundle without applying that same adjustment on the options within the bundle.
Markup Amount (Bundle Only)	Select this and enter a flat markup amount in the **Adjustment Amount** column. The amount you enter applies a markup on the bundle without applying that same adjustment on the options within the bundle.
Price Override (Bundle Only)	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter overrides the net price of the bundle without applying that same adjustment on the options within the bundle.
Price Factor (Bundle Only)	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter is multiplied with the Extended Price to calculate the new Net Price of the bundle.
% Discount Effective	Select this and enter a discount effective percentage in the **Adjustment Amount** column. The value you enter applies a discount on the bundle or total so that the Net Adjustment % on the Bundle or Total is set to the user requested value. This adjustment type is applicable when the following requirements are fulfilled: Group Adjustment Spread is set to True. Max Adjustment Line must be blank or 1. Bundle price must be zero.

Option	Description
% Markup Effective	Select this and enter a discount effective percentage in the **Adjustment Amount** column. The value you enter applies a markup on the bundle or total so that the Net Adjustment % on the Bundle or Total is set to the user requested value. This adjustment type is applicable when the following requirements are fulfilled: Group Adjustment Spread is set to True. Max Adjustment Line must be blank or 1. Bundle price must be zero.
Price Factor Effective	Select this and enter an amount in the **Adjustment Amount** column. The amount you enter is multiplied with the Extended Price to calculate the new Net Price of the bundle or total so that the Net Adjustment % on the Bundle or Total is set to the user requested value. This adjustment type is applicable when the following requirements are fulfilled: Group Adjustment Spread is set to True. Max Adjustment Line must be blank or 1. Bundle price must be zero.

ⓘ   You can apply adjustments on products with positive pricing and negative pricing. For more information, see Use Case: Applying Adjustments on Products with Negative Pricing.

5. Click the **Details** tab. In this view, the price line items are further expanded to reflect pricing for any options associated to bundle products. You can make changes as per your requirement.

6. Click the **Totals** tab. This view shows all Totals by product category and a Grand Total sum of one time plus recurring charges. The Totals tab also allows for a discount or markup to applied to a category as a whole and rolled down to the individual line items in that category. The system distributes the adjustments uniformly across each line item. If any automatic summary adjustments have been configured, they will also appear in this view.
If the admin setting **APTS_RollUpOptionNetAdjustment** is set to True, when you apply adjustments on options, CPQ displays the adjustments on options at the bundle and summary totals level. CPQ calculates the Net Adjustment % of the bundle and total as the difference between the price before and after all manual adjustments including option adjustments. For example:

Product	Base Extended Price	Flat Option Price	Extended Price	Adjustment Type or Amount	Adjusted Price	Group Adjustment %	Net Price	Net Adjustment %
Bundle	1000	90	1090		1090		1090	-0.91%
Option	100		100	10% Discount	90		90	-10.00%

7. Do one of the following:
   - To reprice all the parameters such as a change in the quantity, term, frequency, and any other custom field, click **Reprice All**.
   - To apply all the adjustments you made on the shopping cart, click **Apply All Adjustments**.

   > ⓘ When you update a line item using actions mentioned in the above steps, the pricing pending icon (💲❗) appears at the end of that line. This icon indicates that you must reprice the cart to get the latest prices after you update a line item.

All your selected products are priced with the desired parameters.

> ⓘ
> - On the configuration page, you can observe the **See Price in Cart** link for the option product. When you click on that link, you notice that for the free item, Included with bundle text is displayed as a price value.
> - For single or multiple price list items of the option products, the **See Price in Cart** link pops out well-aligned table for the prices of the corresponding products.
> - You can see the carrot icon when the option has multiple charges of multiple charge types.
> - You can see "Included in Price" when the option has a single charge, and it is included in the price of the bundle.
> - You can see the pop-up for the charge types when you click **See Price in Cart**.
> - On the product options screen during product configuration, you can see prices against the options and when you expand the arrow against the options a list of prices displays.

> • In the multi-adjustment pop-up, when you apply **% Discount**, CPQ applies the **Discount Amount** to the **Base Price** after multiplying it with **Quantity** and **Selling Term** of the bundle product.

You can review the products and prices configured for your quote one last time before returning to the Quote/Proposal page.

- Creating Price Ramps for a Product

  You can create a price ramp for a bundle product or for an option inside the bundle. You can create ramp lines to spread across time periods and add new ramp lines, create user ramps where from one period to the next the quantity (number of users) increases (user count/quantity ramp), and also create revenue ramps where from one period to the next the level of revenue commitment increases (total price/override ramp).

- Defining Tiered Pricing

  Tiered pricing is used to establish rates for a future usage. There is no pricing until you know the future usage.

- Editing Price Agreements

  After product selection and configuration, you are redirected to the Shopping Cart page. The **Edit Price Agreement** button enables you to add and set prices for a product that is to be associated with your contract. When you renew your contract or regenerate a contract, the defined price agreement prices are applicable.

- Managing Contract Pricing

  Contract Pricing in CPQ enables you to store contracted prices in the system. When a quote is created in CPQ, the quote price is determined by looking up the price defined in the Contract.

Applying Multiple Adjustments on Line Items in the Cart

There are two types of adjustments that are applicable on a line item on the cart:

- Auto-applied adjustments: CPQ applies these automatic adjustments such as promotions, price matrices, and price rulesets.
- Manual adjustments: You can manually apply these adjustments on the multiple adjustments pop-up on the cart.

You can apply multiple adjustments at the line level on the cart either by applying the adjustments in the corresponding columns or by applying the adjustments on the multiple

adjustments pop-up. The number of manual adjustments you can apply on a cart line item depends on the **Max Adjustment Lines** setting available in **Config System Properties**. For example, if Max Adjustment Lines = 3, you can apply a maximum of three manual adjustments on the multiple adjustments pop-up. For more information, see Config System Properties.

The following table describes the different values of this setting and its behavior.

Max Adjustment Lines Value	Behavior
Blank or 0	If the value of this setting is 0, CPQ displays only auto-applied adjustments (read-only) on the multiple adjustments pop-up. You can hover the mouse on the line item, click the more icon (⋮), and then select $ **Multiple Adjustments** to view auto-applied adjustments. You cannot add any manual adjustments because the **+ Add another adjustment** button is not available and a message is displayed on the pop-up. You cannot edit or delete any auto-applied adjustment.
Greater than or equal to 1	CPQ displays auto-applied adjustments (in read-only mode) on the multiple adjustments pop-up. You can create as many adjustments on the pop-up as the value defined in the **Max Adjustment Lines** setting. After reaching the limit, CPQ disables the **+ Add another adjustment** button and displays a message on the pop-up. For example, a line item has two price matrices applied and Max Adjustment Lines = 5. CPQ displays two auto-applied price matrices (in read-only mode) by default on the multiple adjustments pop-up and you can add a maximum of five manual adjustments. On the pop-up, you can make changes only to manual adjustments. CPQ enables the **Save** button only after you make any change to a manual adjustment line item.

⚠ Before you apply multiple adjustments to your line item in the multiple adjustments pop-up, ensure that you have not given any manual adjustments against the line item on the cart.

You can apply the adjustments in the following manner:

- Adjustments on the previous price
- Adjustments on the starting price

- Bucket Adjustments (For more information, see Applying Bucket Adjustments on Line Items in the Cart.)

Here is an example of the difference between the previous and starting price types:

Extended Price = $100

SR No	Adjustment Applies to	Adjustment Type	Adjustment Amount	Net Price on Cart	Description
1	Starting Price	% Discount	10	90	Create an adjustment line with adjustment applies to as either starting price or previous price (it doesn't matter because it is the first adjustment). The new net price will be $90
2	Starting Price	% Discount	10	80	Now create another adjustment line with adjustment applies to as starting price that applies a 10% discount. The new total adjustment amount will be 100 * (10% + 10%) = $20. The new net price will be $80.
SR No	Adjustment Applies to	Adjustment Type	Adjustment Amount	Net Price on Cart	Description
1	Starting Price	% Discount	10	90	Create an adjustment line with adjustment applies to as either starting price or previous price (it doesn't matter because it is the first adjustment). The new net price will be $90

SR No	Adjustment Applies to	Adjustment Type	Adjustment Amount	Net Price on Cart	Description
2	Previous Price	% Discount	10	81	Create another adjustment line with adjustment applies to as previous price that applies a 10% discount. The new total adjustment amount will be 100*10%*10% = $19. The new net price will be $81. This is because the previous price would be 100 plus the 10% discount.

> ⓘ
> - When you save the adjustments, CPQ triggers a Reprice action.
> - You can restrict adjustment types using Product Attribute Rule (PAR) at the line item level on the Cart Grid UI. This capability is supported for Adjustment Type picklist.

Use Case: % Discount and % Discount Off Base

You can apply a percentage discount on the base price where CPQ applies the percentage discount to the product's unit price after applying the auto-adjustments from price matrices, price rules, and promotions. If currency rounding after each step is enabled, CPQ rounds off the adjustment and applies the unit price before calculating the new net price.

Standalone Product

This use case shows how CPQ applies % Discount Off Base in comparison with % Discount, on a standalone product. The currency rounding is set to 2 decimal places.

	% Discount	% Discount Off Base
Product Name	Standalone A	Standalone A
List Price	9.99	9.99
Base Price	9.99	9.99
Quantity	100.00	100.00
Term	1.00	1.00
Base Extended Price	999.00	999.00
Option Price		
Flat Option Price		
Extended Price	999.00	999.00
Adjustment Type	% Discount	% Discount off Base
Adjustment Amount	10.00	10.00
Adjusted Price	899.10	899.00
Net Price	899.10	899.00

In case of % Discount Off Base, CPQ applies the discount to the base price first, rounds the currency, and then multiplies by quantity and term. Hence, you observe the following difference:

Bundle product

This use case compares how CPQ applies % Discount off Base with % Discount on a bundle product.

Product Name	How % Discount Works			How % Discount Off Base Works		
	Bundle A	Option OP	Option FOP	Bundle A	Option OP	Option FOP
List Price	9.99	0.99	0.99	9.99	0.99	0.99
Base Price	9.99	0.99	0.99	9.99	0.99	0.99
Quantity	100.00	100.00	100.00	100.00	100.00	100.00
Term	1.00	1.00	1.00	1.00	1.00	1.00
Base Extended Price	999.00	99.00	99.00	999.00	99.00	99.00
Option Price	99.00			99.00		
Flat Option Price	99.00			99.00		
Extended Price	10998.00	99.00	99.00	10998.00	99.00	99.00
Adjustment Type	% Discount			% Discount off Base		
Adjustment Amount	10.00	10.00	10.00	10.00	10.00	10.00
Adjusted Price	9,898.20	99.00	99.00	10,898.00	99.00	99.00
Net Price	9,898.20	89.10	89.10	10,898.00	99.00	99.00

CPQ only applies the % Discount Off Base to the base price of the bundle product (similar to a bundle-only adjustment).

Use Case: Applying Adjustments on Products with Negative Pricing

This use case describes applying adjustments on products with negative pricing.

Prerequisites

- The price list item for one product has positive pricing.
- The price list item for another product has negative pricing.

Applying Adjustments at Line-Item Level

If you add both these products to the cart, you see the following products:

Product	Net Price	Base Price
P1	(USD 100.00)	(USD 100.00) **Note:** The PLI of this product has negative pricing.
P2	USD 250.00	USD 250.00

If you apply 10% discount on both products at line-item level, CPQ displays the updated price details as follows:

Product	Net Price	Base Price	Adjustment
P1	(USD 110.00)	(USD 110.00)	-10.00
P2	USD 225.00	USD 250.00	-10.00

Applying Adjustments at Summary Level

If you add both these products to the cart, you see the following products:

Product	Net Price	Base Price
P1	(USD 100.00)	(USD 100.00) **Note:** The PLI of this product has negative pricing.
P2	USD 250.00	USD 250.00

CPQ displays the following details at the grand total level for this cart:

Extended Price	Adjusted Price	Net Price	Net Adjusted Price
USD 150.00	USD 150.00	USD 150.00	USD 0.00

If you apply 10% discount on the total amount at the summary level, CPQ displays the updated price details at the summary level as follows:

Extended Price	Adjustment	Adjusted Price	Net Price	Net Adjusted Price
USD 150.00	10.00	USD 135.00	USD 135.00	-10.00

CPQ displays the updated price details on line items as follows:

Product	Net Price	Base Price	Adjustment
P1	(USD 110.00)	(USD 110.00)	-10.00
P2	USD 245.00	USD 250.00	-2.00

CPQ applies the adjustment of 10% discount on the product with negative pricing first. The net price of P1 becomes USD -110.00. CPQ then adjusts the remaining USD -5.00 from P2. Therefore CPQ applies 2% discount on P2.

Applying Bucket Adjustments on Line Items in the Cart

A **bucket** (field on **Adjustment Line Item** object) serves as a container for the adjustments that a sales representative applies on a line item in the cart. The final value after applying the adjustments within the same bucket is stored in a field called **Running Total**.

You can group the adjustments in buckets. Adjustments in the same buckets are applied to the same starting price and the results form the running total price points. With bucket adjustments, you support cascading pricing discounts by controlling if you want to apply the discounts on the previous or starting price of the Line Item. The adjustments that fall under the first bucket are applied to the starting price. Subsequent bucket adjustments are applied on the adjusted price in the previous bucket, which is Running Total (Adjusted Price).

> ⚠ You can apply bucket adjustments when the Administrator has enabled the **Enable Adjustment Buckets** checkbox in Config System Properties.

If Bucket field value is null, a sales representative must choose between the starting price, from bucket 2 to the running total and the previous price. The pricing engine performs the following sequential tasks:

1. Applies the manual adjustments from bucket 1 to the starting price.
2. Applies the price from bucket 2 to the running total that is the result of calculating bucket 1 adjustments.
3. Applies bucket 3 to the running total of bucket 2 adjustments.

The same calculation logic applies to subsequent buckets. Numbered buckets are processed before null buckets.

Use Case: Applying Bucket Adjustments

Description: This use case describes how you can apply adjustment buckets on a line item in the cart page. You might use this functionality differently, depending on your business case.

Bucket adjustments help you control at which point you want to apply the adjustments in a cascaded adjustment cycle.

Suppose you are a sales representative and you want to provide cascading price discounts to a product. You have three categories of discounts you can provide. The first category is called "Valued Customer Discounts", the second category is called "Marketing Incentives", and the third category is called "Seasonal Promotions". For each of the category, you want to provide multiple discounts, being either % based or an amount based. This is also to incentivize the user to make an immediate purchase.

In this case, you can apply three buckets, each representing a category. In each bucket, you can define one or multiple % based discounts, one or multiple amount-based discounts.

Bucket 1: Valued Customer Discounts (VCD)

1. 5% off

Bucket 2: Marketing Incentives (MI)

1. $20 off
2. 10% off

Bucket 3: Seasonal Promotions (SP)

1. Type One: $100 off
2. Type Two: 5% off
3. Type Three: 2% off
4. Type Four: $50 off

If the starting price is $1000, the calculation works as depicted in the graph below:
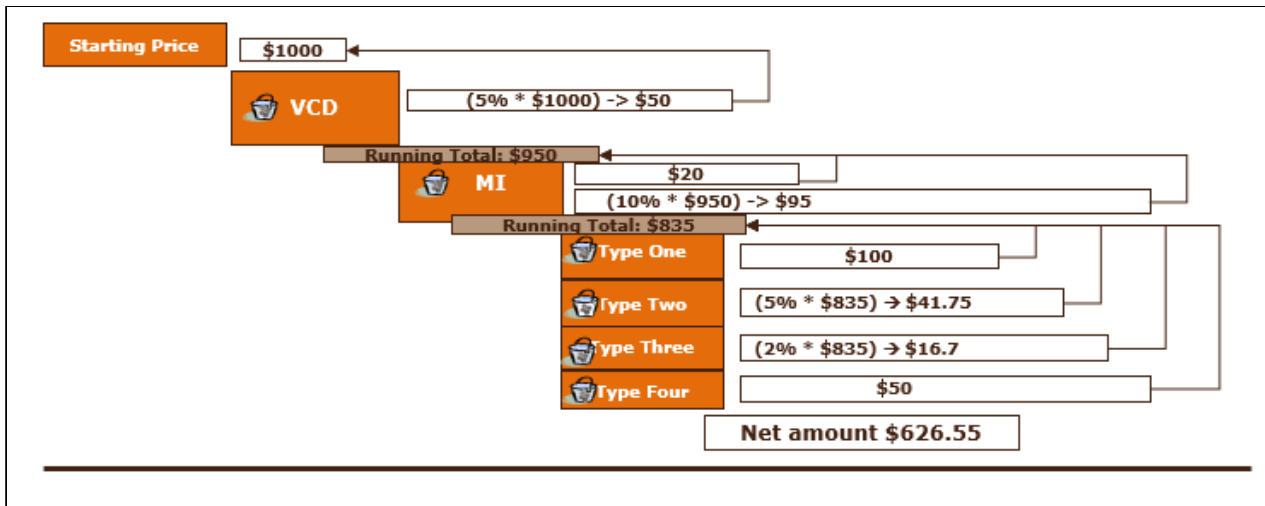
To apply bucket adjustments on line items in the cart

Prerequisite

You must have selected **Enable Adjustment Buckets** custom setting and defined a numeric value in **Max Adjustment Lines** custom setting.

1. Navigate to the cart.

2. For any line item in the cart, click the dollar icon ($). The Adjust Price for <Product Name> <Charge Type> dialog box is displayed.

3. Enter the following details.
    a. **Type**: Select the type of adjustment.
    b. **Bucket**: Select the adjustment bucket.
    c. **Adjustment Applies To**: Select the price to which this adjustment applies.
        - **Starting Price**: Select this option to apply adjustments on the starting price.
        - **Previous Price**: Select this option to apply adjustments on the adjusted price of the previous bucket.
        - **Bucket <number>**: Select this option to apply adjustments on the adjusted price of a specific bucket. Buckets configured by your

administrator are listed here; by default, you are allowed to apply 10 buckets.

    d. **Adjustment Type**: Select the type of adjustment.

    e. **Adjustment Amount**: Enter the adjustment amount.

4. Click **Add another adjustment** to add one more adjustment and enter the details as in Step 3. Depending on your requirement, you can select a bucket for multiple adjustments.

5. Click **Save**.

Result: Bucket Adjustments are applied for the selected line item in your cart.

> ⓘ If you select a bucket that was not applied in any previous adjustments in the **Adjustment Applies To** column, the adjustment is automatically applied on the preceding bucket. If there is no preceding bucket then the adjustment is applied on the Starting Price.

Use Case: Applying Unit Level Discounts

You can apply the unit level discount on the line item level, adjustment line item level, or adjustment line items with different UoM (Unit of Measure) level. For instance, case: 10 Each (Frequency/UoM).For more information, see Configuring Unit of Measure (UOM) and Frequency Conversion Rate.

On the cart in the multi-adjustment pop-up, when you apply **% Discount**, CPQ applies the **Discount Amount** to the **Base Price** after multiplying it with **Quantity** and **Selling Term** of the bundle product.

> ⓘ **You must select the custom setting** `Enable Base Price Adjustment` **in the System Properties > Price Settings in order to reprice the line item.**

Scenario 1: On Line Item

List Price	Base Price	Quantity	UoM	Extended Price	Adjustment Type	Discount Amount (%)	Adjusted Price
$100	$100	5	Each	$500	Base Price Discount	10	$450

Scenario 2: On Adjustment Line Item

List Price	Base Price	Quantity	UoM	Extended Price	Adjusted Price	Bucket	Adjustment Applies To	Adjustment Type	Amount	UoM	Net Price of Bundle	Unit Level Price
$100	$100	5	Each	$500	$350	Bucket 1	Starting Price	Discount %	10%	Each		$50
						Bucket 1	Starting Price	Discount	$50	Each	$400	$50
						Bucket 2	Bucket 1	Base Price Discount	$10	Each	$350	$80

Scenario 3: On Adjustment Line Item with Different UoM

List Price	Base Price	Quantity	UoM	Extended Price	Adjusted Price	Bucket	Adjustment Applies To	Adjustment Type	Amount	UoM	Net Price of Bundle	Unit Level Price
$100	$100	5	Each	$500	$395	Bucket 1	Starting Price	Discount %	10%	Each		$50
						Bucket 1	Starting Price	Discount	$50	Each	$400	$50
						Bucket 2	Bucket 1	Base Price Discount	$10	Case	$350	$80
									$1	Each	$395	$79

On the Bucket 2, CPQ calculates the price after discount based on the UoM for each unit. For instance, $1 discount is applied for 5 option products, which in turn adjusted the net price of bundle to $395 and unit level price $79.

> ⚠ If you have applied an adjustment on the promotion, an adjustment line is created and the discount is provided appropriately.

Creating Price Ramps for a Product

You can create a price ramp for a bundle product or for an option inside the bundle. You can create ramp lines to spread across time periods and add new ramp lines, create user

ramps where from one period to the next the quantity (the number of users) increases (user count/quantity ramp), and also create revenue ramps where from one period to the next the level of revenue commitment increases (total price/override ramp).

> ⓘ CPQ currently allows you to create and finalize a quote with 100 line items with a maximum of five ramps each. These line items can be standalone products or bundles with options. These line items can be 100 options in a single bundle.

You can also create price ramps for products with Related Pricing. When a standalone or a bundle product with options has Price Method = Related Pricing, you can create price ramps.

> ⓘ CPQ considers only the following line items as sources while calculating the base price for an option:
> - One time charges
> - Recurring charges that have a period overlap with the option

While creating ramps the start date, end date and quantity are required fields. Ensure that the dates must not overlap between ramps.

> ⓘ You cannot create ramps and tiers both for an option.

Creating Price Ramps on the Cart Page

On the Cart page, you can create price ramps for the products by following the steps mentioned below.

Before you begin

The administrator must enable **Enable Price Ramp** setting in the price list item.

To create a price ramp on the pricing cart page

On the cart page.

1. Click the ramp icon (📊) on a line item. A ramp pop-up is displayed.

Define Price Ramps for Quoting B1								✕
Add	Quantity	Selling Term	Selling Frequency	Extended Price	Adjustment Type	Adjustment Amount	Start Date	End Date	Remove
✚	1	1.00	One Time	USD 100.00	Markup Amount ✕ ▾	50.00	01/01/2018	12/31/2018	🗑

2. Specify the price ramps for a product as described below. The options in the list depend upon the columns defined in Display Columns Settings. For more information, see Configuring Display Column Settings.

Option	Description
Add	Click the add icon to add new ramps.
Quantity	Displays and allows you to specify the quantity of the selected product for a level in the price ramp.
Selling Term	Displays and allows you to specify the selling term.
Selling Frequency	Displays or allows you to define the usage period for a level in the price ramp for the selected product by specifying its term and the type of period.
Extended Price	Displays the selected products extended price.
Adjustment Type	Displays or allows you to specify the adjustment type for a level in the price ramp for the selected product.
Adjustment Amount	Displays or allows you to specify the adjustment amount for a level in the price ramp for the selected product.
Start Date	Displays and allows you to specify the starting date of the usage period for a level in the price ramp for the selected product. Note: Start Date must be before Ending Date.
End Date	Displays and allows you to specify the ending date of the usage period for a level in the price ramp for the selected product.
Status	Displays the status. A red **X** icon is displayed to indicate an issue.
Remove	Click the remove icon to the remove the selected ramp.

3. Click **Save**.

> ⓘ The CPQ automatically enables price ramp on the second charge type, when price ramp is enabled for the first charge type on the cart page. You will observe such behavior in case if your administrator has selected **Enable Auto Ramp Creation** while configuring the price list item for the product.

If the ramp is on a bundle or standalone product, each ramp line becomes a line in the cart.

In case you defined more than one ramp line for a bundle and its options, if you change the quantity of the bundle in the primary ramp line, the primary ramp line of the options is automatically updated. You need to update the non-primary ramp lines of the options manually. This is true when Enable Auto Ramp and Auto Cascading are enabled.

Limitations

Please note that if you have selected a custom frequency, you see the following limitation:

- Option Price of Option ramp line is not added to the respective bundle.
- Selling Term is not calculated as per the Start Date and End Date.
- Canceling a ramp line during change operation creates multiple lines.
- A maximum of 50 ramp lines can be created in the current release.

How is price escalator applied on ramp lines during ABO operations?

CPQ applies Price Escalator on new ramp lines created during ABO operations regardless of the **Default Asset Pricing Indicator?** setting (true or false). A new ramp line always gets its value from the price list item (PLI) pricing. For more information, see Use Case: Applying Price Escalator on New Ramp Lines During ABO Operations.

Defining Tiered Pricing

Tiered pricing is used to establish rates for future usage. There is no pricing until you know the future usage.

Here is an example: In a cell phone plan, you are quoted possibly a tiered plan of $/minute for various blocks of time that you agree to pay. At the end of the billing cycle, the carrier will use the tier to determine the actual rate to apply to the minutes consumed and present you the bill for payment. At the time of quoting, only the rate is established.

If you have defined price matrices, the tiered pricing for a product is inherited from there. If you make any adjustments on the line item that has a tiered rate defined, the adjustments apply to the tiered rate and also affect the price matrices.

> ⓘ You cannot create ramps and tiers both for an option.

To define tiers

1. Select a product on the options/configuration page. The tiers table appears below the selected product.
2. Type a mandatory **Tier Start Value** and **Tier End Value**. Ensure that the start and end values do not overlap. For example, the range must be 0-100, 101-200, and so on.
3. Type a mandatory **Usage Rate**.
4. To add more tier lines, click the or icon, and select **Add**.

A new tier line is added in the tiers table.

Editing Price Agreements

After product selection and configuration, you are redirected to the Shopping Cart page. The **Edit Price Agreement** button enables you to add and set prices for a product that are to be associated with your contract. When you renew your contract or regenerate a contract the defined price agreement prices are applicable.

> ⓘ • You can use Edit Price Agreement action button only when the Quote Intent is selected as Order.

To edit a price agreement

1. On the Shopping Cart page, click the action drop down next to the Finalize button and select **Edit Price Agreement**.
2. Click **Add More Products** to add products the contract.
3. Select the products from the list and click **OK**. You can also search for the product using Product Name, Product Code, or Product family.
4. Specify the quantity range for the product in the **From** and **To** fields. To define product quantity ranges, such as 1-20, 21-50, click +.
5. Specify the **Start** and **End Date** ranges during which the product is valid.
6. Specify the **Unit Price**, **Flat Price**, and adjustments if any for a specific quantity range.
7. Click **Save**.

After you finalize the agreement and are redirected to your contract, the price agreement that you save will be associated with your contract as the new Price List.

Managing Contract Pricing

Contract Pricing in CPQ enables you to store contracted prices in the system. When a quote is created in CPQ, the quote price is determined by looking up the price defined in the Contract. Contract price list is a subset of the standard price list. This implies that when the same product is defined in multiple contract price lists, the former contract takes precedence. Contract Pricing is supported for standalone and bundles. Contract Pricing for Options is supported provided options are defined in the same contract price list as the bundle. Options cannot be in a different price list. Options inherit the contract price list from the bundle.

CPQ enables you (a sales representative) to know what adjustments were applied as part of a contract price list so that you can negotiate better with customers and convince them about the discounts they are getting as part of contracts. When a contract price list is generated, it holds the list price from the line item along with its negotiated contract price. When the contract price list is used in pricing a line item, you know the new contract price (used for price calculation, that is, Base Price onward) and the original list price when the contract was negotiated.

CPQ enables you (a sales representative) to quote the correct price to the customer even if none of the contract price lists are applicable. When there is no contract price available, CPQ falls back to the quote price list to verify if it has an applicable price list item. If the quote price list does not have the applicable price list item, CPQ falls back to the *Based on Price List* to derive the price.

To select a contract pricing list

You must have an existing contract pricing list.

1. Navigate to the **Proposals** tab and select a proposal.
2. Click **Configure Products (Contract Pricing)** and add products to the cart.

> ⓘ Your admin must have configured the custom **Configure Products** button. For more information, see Defining Contracts to be Used in a Quote.

You have selected to configure products having contract pricing.

To apply contract pricing on line items

The **Contract Number** field is available on Line Item record. This will apply contract pricing on specific line item only. This parameter useful when we want to apply contract pricing on specific set of products or some other criteria based on condition and not on all products. You can also enter the contract number on the line items in the cart

Applying Promotions on Line Items in the Cart

Of the two options available to apply promotions, you can apply the promo code on the cart page (PULL) or CPQ applies the promotion once your criteria are met (PUSH).

- **PULL promotion**: You can manually view the available promo codes and apply one or more promo codes to your line item (product level) and to the entire cart.
- **PUSH promotion**: This type of promotion is applied to your line items (products) or to your entire cart when the entry criteria for the promotion are met for the selected products and the entire cart. CPQ automatically updates your pricing for respective products or cart, depending on the promotion applied.

To manually apply a promo code to the shopping cart

You must have a cart that contains products to which you can apply promo codes. CPQ enables you to apply or remove promotions or coupons on line items individually or on multiple line items together (mass application). If there are line items with $0 price but eligible for promotions, CPQ populates incentive codes for those line items. Promotions and coupon applications must be mutually exclusive.

After coupons are generated from a promotion, the Apply Promotions dialog box does not list the promotion. This forces the user to enter the coupon code to apply coupons instead. Only coupons that have not reached the usage limits are displayed. When the user enters a coupon, it is stored on the Product Configuration object under the Coupon Code field.

> ⓘ The **Apply Promotions** and **Remove Promotions** buttons are visible only when you select line items.

Applying Promotions or Coupons

1. Navigate to the cart.
2. Select the required line items and click **Apply Promotions**. The Apply Promotions/ Coupons window is displayed.

> ⓘ If you select one line item on the cart, CPQ displays the promotions eligible for that line item only.
>
> If you select multiple line items, CPQ displays promotions based on the union of promotions that are eligible for those selected line items. When you select multiple line items and apply promotions, CPQ applies promotions only to the line items that are eligible for promotions.
>
> You can verify the applied promotions by checking the incentive code on the line items. You can see only the eligible promotions' incentive code on those line items.

- Select a single line item to apply one or more promotions or coupons to it.
- Select multiple line items to apply promotions or coupons together (mass application).
- Select all items to apply promotions or coupons to at the cart level.

3. On the Promotions tab:
   a. Select the required promotions. You can also search for promotions.
   b. To remove any existing promotion, deselect the checkbox next to the promotion. This is possible when only one promotion is applied on the line item.

> ⓘ When you are applying a promotion to multiple lines:
>   - if the same promotion is already applied to a line, CPQ skips that line and applies the promotion to the remaining items.
>   - if a different promotion is already applied to a line, CPQ applies the new promotion to all items.
>   - if you deselect the same or different promotion already applied to a line on the Promotions tab, CPQ does not remove the promotion applied to the line.
>
> In a *Buy X Get Y* scenario, if there are multiple line items of a benefit product (Y) with different attributes or configurations in the cart, you can apply the promotions as follows:

- If the administrator has enabled the *APTS_EnableMultiBenefitItems* setting, CPQ applies the promotion to all line items of the benefit product (Y).
- If the administrator has disabled the *APTS_EnableMultiBenefitItems* setting, CPQ applies the promotion only to the first line item of the benefit product (Y).

In a promotion of type *For Every X Get X* where X, if the administrator has defined multiple products in the criteria of the promotion, CPQ applies promotion on any of those products you add to the Cart. The X here can be multiple products or any product from a group. For example, Mobile Phones is a group of products consisting ABC 13, ABC 13 Pro, and ABC 13 Max phones. Your administrator has created a *For Every X Get X* promotion for Mobile Phones as "for every 5 mobile phones get 20% discount on the 6th mobile phone". When you add any product from Mobile Phones (that are defined in the criteria of the promotion) to the Cart; CPQ applies the defined *For Every X Get X* promotions to those products. For example, if you add 6 ABC 13 and 6 ABC 13 Max phones to the Cart, CPQ provides 20% on the 6th 6 ABC 13 and 6th ABC 13 Max phones. However, you must fulfil the quantity criteria for each product to get the benefit for that product. For example, the you must add 5 ABC 13 mobile phones to get 20% discount on the 6th ABC 13. You will not get any benefit if you add 4 ABC 13 and 2 ABC Pro phones to the Cart.

In a *For Every X Get X* or *For Every X Get Y* scenario, when a line item gets the benefit, CPQ displays the quantity of the product that received the promotion benefit, on the **Benefit Quantity** column on the Multiple Adjustments pop-up. When a line item gets the benefit in these scenarios, the entire quantity of that line item may not always receive the benefit and hence the **Benefit Quantity** column displays the quantity that received the benefit. For example:

- You add 6 laptops to the Cart and apply a *For Every X Get X* promotion that is defined as "for every 2 laptops you buy get 10% discount on the third laptop". The **Benefit Quantity** column on the Multiple Adjustments pop-up displays 2.
- You add 5 laptops to the Cart and apply a *For Every X Get X* promotion that is defined as "for every 5 laptops you buy get 10% discount on each laptop". The **Benefit Quantity** column on the Multiple Adjustments pop-up displays 5.

When you are applying multiple promotions to a line item, refer to the field **Combine With Other Promotions**. This field indicates whether or not you can combine the promotion with other promotions.

4. On the Coupons tab:
   a. Select the required coupons. You can also search coupons.
   b. To remove any existing coupon, deselect the checkbox next to the coupon. This is possible when only one coupon is applied on the line item.
5. Click **Apply**.

> ⚠ You can click **Apply Promotions on Totals** to apply promotions to the total amount on the cart.

Removing Promotions or Coupons

1. Navigate to the cart.
2. Select the required line items and click **Remove Promotions**. The Remove Promotions/ Coupons window is displayed.
   - Select a single line item to remove one or all promotions or coupons applied on it.
   - Select multiple line items to remove promotions or coupons together (mass removal). When you select multiple line items, only those promotions or coupons that are common can be removed.
   - Select all items to remove promotions or coupons at the cart level. When you all line items, only those promotions or coupons that are applied at the cart level can be removed.
3. On the Promotions tab, select the required promotions. You can also search promotions.
4. On the Coupons tab, select the required coupons. You can also search promotions.
5. Click **Remove**.

The pricing on the cart is updated automatically to include the benefits of the promotions you apply. The **Incentive Adjustment Amount** denotes the adjustment amount that is applied using the promo code.

After applying promotions on your cart, you can now proceed to add more products or save and finalize the cart.

Adding Miscellaneous Items

You can use this functionality to add additional charges that are not SKU-related such as shipping charges or sales tax to the quote. These charges are not associated with any product. When you add a miscellaneous item, a new line item is created in the cart and is cascaded to proposal line item and order line item.

To add a miscellaneous item

Follow the steps below.

1. Go to the Cart page.
2. Click **Add Miscellaneous Item**. The Add Miscellaneous Item pop-up is displayed.
3. Enter the following details on the pop-up and click **OK**.

Fields	Description
Charge Type	Select the type of charge you want to add to the cart. By default, the charge types **Shipping and Handling** and **Sales Tax** are displayed, but your administrator can add more types.
Amount	Enter the amount you want to charge.
Description	Enter the description.

> ⓘ You cannot modify the miscellaneous line items once you add them to Cart. You must delete and add the miscellaneous line item again if you want to modify the record.

After you click **OK**, a new line item with **Charge Type** as the name is created on the Cart page. Click the name to view miscellaneous line item details. When you finalize the cart, the miscellaneous item is added to the quote as a proposal line item. After you accept the quote, an order is generated and an order line item is added for the miscellaneous item on the generated order.

Using Deal Guidance

You can use deal guidance to offer a deal to the customers that are considered good based on your company's criteria. For more information about how to use deal guidance, see About Deal Guidance.

Subtotaling by Groups in the Cart

A product group is a high-level grouping of the products. Product groups enable you to categorize the products which are displayed on the cart page. When you select the group level checkbox, CPQ auto-selects all the products in the group and allows you to select line items and perform actions such as **Copy**, **Remove From Cart**, and **Mass Update**. You must specify the API names in the **Config System Properties** > **Manage** > **System Properties** > **GroupBy Fields**. For more information, see Configuring Custom Settings. These line item fields can be of the Lookup, Text, and Formula types.

Viewing subtotal at the group by cart level: You can view the subtotals of the cart by a group so that you can make decisions while applying adjustments at the group line item. When you view a cart by the group, you see the relevant subtotals as separate line items. Group by subtotal has similar columns as Cart Line Item display columns.

About Quantity and Selling Term Calculation Using Default Pricing Settings

This section describes how CPQ calculates quantity and selling term using the **Default Quantity**, **Auto Cascade Quantity**, **Default Selling Term**, and **Auto Cascade Selling Term** settings.

For Auto Cascade Quantity, the price methods can be different for secondary charge types or options. The price methods need not be the same for all charge types or options. For example, if the bundle or primary charge type has Recurring as the price method, the options or secondary charge types can have *Per Unit*, *Recurring*, or any other price methods.

For Auto Cascade Selling Term, the price type must be the same for all. For example, if the bundle or primary charge type has *Recurring* as the price method, the options or secondary charge types must have the price method as *Recurring* only. For any secondary charge type or option group, if the administrator has defined the default quantity and default selling term, and also selected the **Auto Cascade Quantity** and **Auto Cascade Selling Term** checkboxes, CPQ does not apply the defined default quantity and selling term to products; instead the products inherit the default quantity and selling term of the main charge type or the bundle. If the administrator has defined the default quantity and default selling term, but not selected the **Auto Cascade Quantity** and **Auto Cascade Selling Term** checkboxes, CPQ applies the defined default quantity and selling term to products and calculates pricing on the cart.

If the administrator has not defined any value for the default quantity and the default selling term of the primary charge type and bundle, but has selected the **Auto Cascade Quantity** and **Auto Cascade Selling Term** checkboxes for their secondary charge type or the option products, CPQ applies the system-generated default quantity and the selling term to those products by calculating the expected start date and end date with their primary charge type or bundle product.

The Auto Cascade Quantity and the Auto Cascade Selling Term overwrite the cart-level inputs. For example, if the administrator has selected the **Auto Cascade Quantity** and **Auto Cascade Selling Term** checkboxes for an option or secondary charge type, CPQ applies the quantity and selling term of its bundle or primary charge type, and displays the same in the cart. If you modify the cascaded quantity and selling term and click **Reprice**, CPQ restores the auto-cascaded quantity and auto-cascaded selling term from its primary charge type or bundle. However, if you modify the default quantity of the main bundle or primary charge type and click **Reprice**, CPQ overwrites the default quantity of the main bundle or primary charge type with its option product or secondary charge type.

For the Bundle and Option scenario, if any charge type of the bundle has **Auto Cascade Selling Term** set to True and the same charge type is there among the options, then at least one option must have **Auto Cascade Selling Term** set to True for the charge type.

In the following Bundle and Option scenario, a bundle has two charges (that is, primary charge type and secondary charge type) and two options. The administrator has defined the default quantity and default selling term for both primary and secondary charge types. The administrator has also selected the **Auto Cascade Quantity** and **Auto Cascade Selling Term** checkboxes for any of the option.

- It inherits the selling term and quantity from the primary charge type of the bundle only.
- It does not inherit the selling term and quantity from the secondary charge type of the bundle.
- Moreover, if administrator has not defined the default quantity and default selling term for the primary charge type, but defined the same for the secondary charge type, and then selected the **Auto Cascade Selling Term** and **Auto Cascade Quantity** checkboxes for any option, it does not inherit the quantity and selling term of the secondary charge type.
- However, if the administrator has selected the **Auto Cascade Selling Term** and **Auto Cascade Quantity** checkboxes for the bundle product, and defined the default quantity and default selling term for the primary charge type, it inherits from the primary charge type.

In the following Bundle and Option scenario:

- If all options in a bundle have the Auto Cascade Selling Term set to True, the selling term of options is not editable on the cart. All options must always cascade selling term from the bundle only. In this case, only the bundle selling term is editable.
- If all options in a bundle have the Auto Cascade Selling Term set to False, the selling term of the bundle is calculated based on the highest selling term of options. You must not edit the selling term on the bundle.
- If a bundle has a mix of options with the Auto Cascade Selling Term set to both True and False, the selling term of the bundle is not editable on the cart. CPQ considers the highest selling term of the non-cascaded option and rolls it up to the bundle and the same term cascades to other auto-cascaded options.
- If a bundle has multiple charge types with Auto Cascade Selling Term set to True, only the term on the primary charge line is editable on the cart and the same term cascades to all other secondary charge lines. You cannot update the term of any secondary charge line if it is auto-cascaded.
- If proration is allowed and Auto Cascade Selling Term is set to True, upon a change in the selling frequency of the bundle, the term is auto-calculated based on the end date and selling frequency. The same term cascades to the option as well. Monthly, yearly, quarterly, and half-yearly frequencies are supported.

In Use Case: Auto Cascade Quantity and Auto Cascade Selling Term for Bundle Products, scenarios 17 and 18 are important with respect to the selling term. If the administrator has defined the default selling term for any secondary charge type or options and also selected the **Auto Cascade Selling Term** checkbox, CPQ displays the default selling term while configuring that charge type or option in the cart, not the cascaded selling term.

Use Case: Auto Cascade Quantity and Auto Cascade Selling Term for Standalone Products

This section describes how CPQ calculates quantity and selling term of standalone products when different combinations of default quantity, Auto Cascade Quantity, default setting term, and Auto Cascade Selling Term are used.

Scenario	Standalone Product	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
1	Auto_NS_P_001	Standard Price	2	4	FALSE	2	FALSE	4

Scenario	Standalone Product	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
		Installation Fees			TRUE	2	TRUE	4
		Implementation Fees			FALSE	1	FALSE	4
2	Auto_NS_P_001	Standard Price	2	4	FALSE	2	FALSE	4
		Installation Fees			FALSE	1	FALSE	4
		Implementation Fees			TRUE	2	TRUE	4
3	Auto_NS_P_001	Standard Price	2	4	FALSE	2	FALSE	4
		Installation Fees			FALSE	1	FALSE	4
		Implementation Fees			FALSE	1	FALSE	4

Scenario	Standalone Product	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
4	Auto_NS_P_001	Standard Price	2	4	FALSE	2	FALSE	4
		Installation Fees			TRUE	2	TRUE	4
		Implementation Fees			TRUE	2	TRUE	4
5	Auto_NS_P_001	Standard Price	2	4	TRUE	1	TRUE	4
		Installation Fees			FALSE	1	FALSE	4
		Implementation Fees			FALSE	1	FALSE	4
6	Auto_NS_P_001	Standard Price	2	4	FALSE	2	FALSE	4
		Installation Fees			FALSE	1	FALSE	4

Scenario	Standalone Product	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
		Implementation Fees			FALSE	1	FALSE	4
7	Auto_NS_P_001	Standard Price			TRUE	1	TRUE	6
		Installation Fees			FALSE	1	FALSE	6
		Implementation Fees			FALSE	1	FALSE	6
8	Auto_NS_P_001	Standard Price			FALSE	1	FALSE	6
		Installation Fees			FALSE	1	FALSE	6
		Implementation Fees			FALSE	1	FALSE	6
9	Auto_NS_P_001	Standard Price			TRUE	1	TRUE	6

Scenario	Standalone Product	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
		Installation Fees			TRUE	1	TRUE	6
		Implementation Fees			FALSE	1	FALSE	6
10	Auto_NS_P_001	Standard Price			TRUE	1	TRUE	6
		Installation Fees			FALSE	1	FALSE	6
		Implementation Fees			TRUE	1	TRUE	6
11	Auto_NS_P_001	Standard Price			FALSE	1	FALSE	6
		Installation Fees			TRUE	1	TRUE	6
		Implementation Fees			FALSE	1	FALSE	6

Sc en ari o	Stand alone Produc t	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
12	Auto_N S_P_001	Standar d Price			FALSE	1	FALSE	6
		Installa tion Fees			FALSE	1	FALSE	6
		Impleme ntation Fees			TRUE	1	TRUE	6

Use Case: Auto Cascade Quantity and Auto Cascade Selling Term for Bundle Products

This section describes how CPQ calculates quantity and selling term of bundle and option products when different combinations of default quantity, Auto Cascade Quantity, default setting term, and Auto Cascade Selling Term are used.

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
1	ND_Bun dle1	Standar d Price	2	4	FALSE	2	FALSE	4
	ND_Opt ion1	Impleme ntation Fees			TRUE	2	TRUE	4

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	4
2	ND_Bun dle1	Standar d Price	2	4	FALSE	2	FALSE	4
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	4
	ND_Opt ion2	Installa tion Fees			TRUE	2	TRUE	4
3	ND_Bun dle1	Standar d Price	2	4	FALSE	2	FALSE	4
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	4
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	4
4	ND_Bun dle1	Standar d Price	2	4	FALSE	2	FALSE	4

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Opt ion1	Impleme ntation Fees			TRUE	2	TRUE	4
	ND_Opt ion2	Installa tion Fees			TRUE	2	TRUE	4
5	ND_Bun dle1	Standar d Price	2	4	TRUE	1	TRUE	4
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	4
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	4
6	ND_Bun dle1	Standar d Price	2	4	FALSE	2	FALSE	4
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	4
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	4

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
7	ND_Bun dle1	Standar d Price			TRUE	1	TRUE	6
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	6
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	6
8	ND_Bun dle1	Standar d Price			FALSE	1	FALSE	6
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	6
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	6
9	ND_Bun dle1	Standar d Price			TRUE	1	TRUE	6
	ND_Opt ion1	Impleme ntation Fees			TRUE	1	TRUE	6

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	6
10	ND_Bun dle1	Standar d Price			TRUE	1	TRUE	6
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	6
	ND_Opt ion2	Installa tion Fees			TRUE	1	TRUE	6
11	ND_Bun dle1	Standar d Price			FALSE	1	FALSE	6
	ND_Opt ion1	Impleme ntation Fees			TRUE	1	TRUE	6
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	6
12	ND_Bun dle1	Standar d Price			FALSE	1	FALSE	6

Sc en ari o	Bundle and its Option s	Charge Type	Defau lt Quant ity	Defaul t Selling Term	Auto Cascad e Quantit y?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Opt ion1	Impleme ntation Fees			FALSE	1	FALSE	6
	ND_Opt ion2	Installa tion Fees			TRUE	1	TRUE	6
13	ND_Bun dle1	Standar d Price (Primary)	2	4	FALSE	2	FALSE	4
	ND_Bun dle1	Mainten ance Fees (Second ary)	3	5	FALSE	3	FALSE	5
	ND_Opt ion1	Impleme ntation Fees			TRUE	2	TRUE	4
	ND_Opt ion2	Installa tion Fees			FALSE	1	FALSE	4
14	ND_Bun dle1	Standar d Price (Primary)	2	4	FALSE	2	FALSE	4

Scenario	Bundle and its Options	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Bundle1	Maintenance Fees (Secondary)	3	5	FALSE	3	FALSE	5
	ND_Option1	Implementation Fees			FALSE	1	FALSE	4
	ND_Option2	Installation Fees			TRUE	2	TRUE	4
15	ND_Bundle1	Standard Price (Primary)	2	4	FALSE	2	FALSE	4
	ND_Bundle1	Maintenance Fees (Secondary)	3	5	TRUE	2	TRUE	4
	ND_Option1	Implementation Fees			TRUE	2	TRUE	4
	ND_Option2	Installation Fees			TRUE	2	TRUE	4

Scenario	Bundle and its Options	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
16	ND_Bundle1	Standard Price (Primary)	2	4	TRUE	1	TRUE	4
	ND_Bundle1	Maintenance Fees (Secondary)	3	5	TRUE	1	TRUE	4
	ND_Option1	Implementation Fees			TRUE	1	TRUE	4
	ND_Option2	Installation Fees			FALSE	1	FALSE	4
17	ND_Bundle1	Standard Price (Primary)	2	4	FALSE	2	FALSE	4
	ND_Bundle1	Maintenance Fees (Secondary)	3	5	FALSE	3	FALSE	5

Scenario	Bundle and its Options	Charge Type	Default Quantity	Default Selling Term	Auto Cascade Quantity?	Output Quantity in Proposal	Auto Cascade Selling term?	Output Selling Term in Proposal
	ND_Option1	Implementation Fees	6	7	TRUE	2	TRUE	7
	ND_Option2	Installation Fees	8	9	FALSE	8	FALSE	9
18	ND_Bundle1	Standard Price (Primary)	2	4	FALSE	2	FALSE	4
	ND_Bundle1	Maintenance Fees (Secondary)	3	5	FALSE	3	FALSE	5
	ND_Option1	Implementation Fees	6	7	FALSE	6	FALSE	7
	ND_Option2	Installation Fees	8	9	TRUE	2	TRUE	9

Using Price Waterfall

The Price Waterfall page enables you to view and analyze the price for each line item. In addition to that, you can also make manual adjustments to the price points derived in the price pipeline to analyze the key performance indicators.

Launching Price Waterfall:

You can launch a price waterfall chart using one of the following:

- Launching Price Waterfall:
  - Launching Price Waterfall from the Actions menu
  - To Launch Price Waterfall for a specific Line Item
- Analyzing Price Waterfall
- Working with Manual Adjustments in the Price Waterfall UI

Launching Price Waterfall from the Actions menu

1. Navigate to the Catalog.
2. Click **Add products**.
3. Click **Go To Pricing**. The Cart page is displayed.
4. Click **Analyze Price Waterfall**. The Price Waterfall UI is displayed for the first line item.

To Launch Price Waterfall for a specific Line Item

1. Navigate to the Catalog.
2. Click **Add products**.
3. Click **Go To Pricing**. The Cart page is displayed.
4. Place the cursor on the line item and click the kabab menu of desired line item.
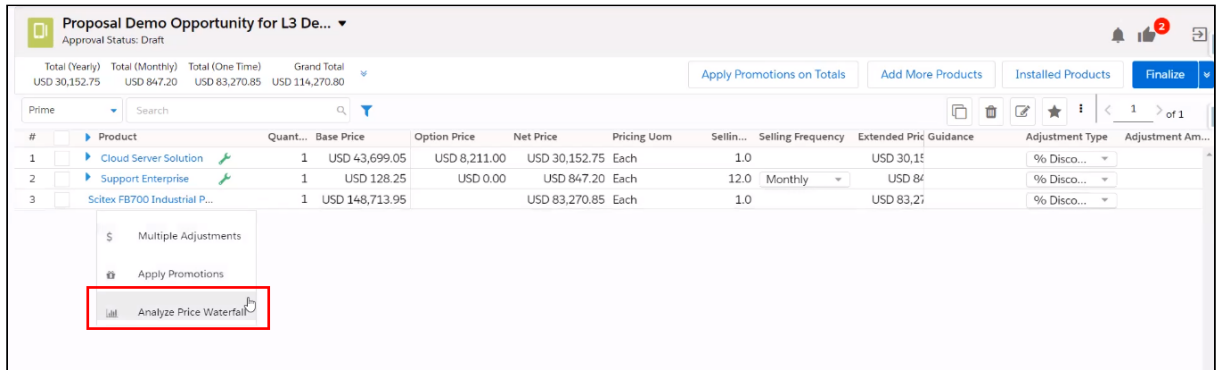
Analyzing Price Waterfall

1. Navigate to the Catalog.
2. Click **Add products**.
3. Click **Go To Pricing**. The Cart page is displayed.
4. Click **Analyze Price Waterfall**. The Price Waterfall UI is displayed for the specific line item.

1.

	Field/ Icon/ Feature	Description
1	List of Line Items	Displays a list of Line items added to the cart and Enter a keyword to search a required product/option, and the search will show the product/parent bundle and its options. Click the required option to view the waterfall chart.
2	Price Summary	The price summary of the cart line item.
3	Waterfall Chart	The waterfall chart is a bar graph where Line Item Fields are plotted vertically, and Cost is plotted horizontally. Click the editable or modifiable bar to update the values.
4	Chart Options and Icons	**Per Unit and Gross tabs:** Per Unit displays price waterfall in terms of unit prices. Gross shows price waterfall in terms of the gross price.
		Menu icons to display the Price waterfall information: You can select whether to view price waterfall in the form of a bar chart (📊) or table (▦).
5	Action buttons	To Reprice or Finalize the cart.

	Field/ Icon/ Feature	Description
6	Line Item fields	The cart line item fields are displayed based on the waterfall setup to a price pipeline. You must enable the 'Is Editable' to a cart line item field to edit the value while analyzing the price waterfall chart. Working with cart line item fields: a. Enter the desired values in the editable cart line fields. b. Click **Reprice** or **Finalize**.

Working with Manual Adjustments in the Price Waterfall UI

Suppose the price point is marked as modifiable in the price pipeline definition. In that case, you can make relevant manual adjustments to the particular price point in the Create Manual Adjustment window. Any manual adjustments you perform on the cart appear against the price point marked as a net price.

To add manual adjustments:

1. Click the price point bar in the price waterfall chart.

> ⚠ You can click only if the price point is set as modifiable by the Admin in the price pipeline definition.

2. Enter the following fields and click **Apply** to view the updated price waterfall chart.

Field	Description
Name	Enter a name for the adjustment.
Adjustment Type	Select adjustment type from the drop-down list. ⓘ You can only apply a *% Discount* as an Adjustment Type for the Net Price.

Field	Description
Amount	Enter the required adjustment amount.
Apply To	Select the source of price point from the following: • Previous: For the running price. • Prior Price Point: for the last point price. • List Price: For the List Price, which is the first price point in the waterfall chart.

Finalizing Products

This section explains the following topics:

- Finalizing the Shopping Cart
- Opening Cart in Read-only mode
- About Product Configuration
- Disabling Cart Versioning
- Revalidating the Product Configuration
- Using Express Proposal

Finalizing the Shopping Cart

This is the final step before taking the finalized set of products and prices back to the Quote/Proposal.

You can review the cart and its pricing and if you are satisfied with the configuration and pricing, you can finalize the cart.

To finalize the cart

You must click the **Reprice** button to accept any pending changes in pricing. You must also resolve any validation errors that may appear due to validation rules.

1. On the Cart page, click **Finalize**.

   ⓘ CPQ can prevent you from finalizing the cart if the bundle configuration does not honor the **Min Options** configured for an option group of that bundle. This can happen when:
   - The admin setting *APTS_ExecuteMinMaxRulesOnInactiveOptions* is set to True.
   - **Min Options** is defined for an option group.
   - The option group is hidden because the options under it do not have any active price list items.
   - You finalize the cart when there are no active products in an option group to fulfil the minimum number of options.

> If you click **Finalize**, CPQ displays an error message that configuration is pending for the bundle that has the option group (where options have inactive PLIs).

2. To confirm the product configuration and pricing, and return to the Quote/Proposal detail page, click **Finalize**.

> ⓘ CPQ updates the **Finalized Date** field on the quote and cart only if you update the status of the cart as *Saved* before re-finalizing the cart using API.
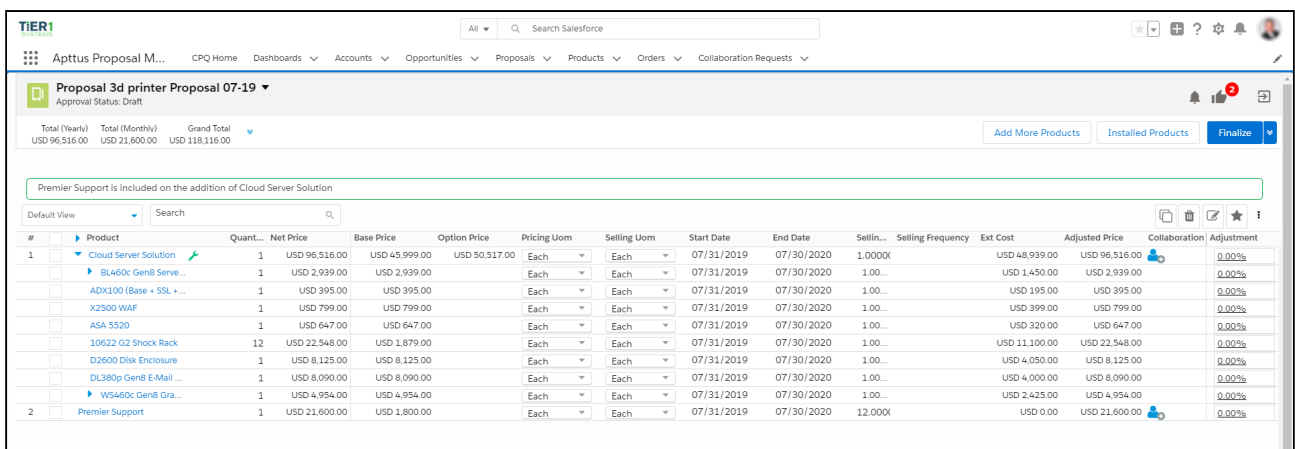
CPQ processes the finalization of the cart synchronously or asynchronously based on the value of the **QTC Profile** field you selected while creating the quote. The following table lists the fields **QTC Profile** and the mode in which the cart is finalized. After the cart is finalized, CPQ sends a notification email informing you that the cart is finalized. If the admin has enabled it, you can see a link to the associated quote in the notification email, which you can use to open the quote. For more information, see Adding a Link to Quote in Cart Finalize Notification Email Template.

Value	Description
Regular	CPQ finalizes the synchronously unless the administrator has defined **asyncFinalize** as *true*.
Split	CPQ processes cart pricing and finalization asynchronously in a Smart Cart flow.
Enterprise	The cart finalization is processed asynchronously without dividing the product configuration. For more information, see Configuring Enterprise QTC Profile Value for Quote.

You can see a progress bar on the Quote Details page that indicates CPQ is processing the finalization request. After the completion, all the product configuration and pricing information is displayed on the Quote Detail page. The progress bar only appears if the admin has enabled it, refer to Configuring Progress Tracker for Async Operation.

> ⓘ If you want to change the **Account** associated with a quote with finalized or saved product configuration, you must abandon the cart and reconfigure it.

If your product contains Usage Tiers and Attributes, there might be a delay for the system to create these records while you land on the Quote/Proposal page. You must wait for the system to finalize the configurations before going for document generation or asset creation.

After the quote is finalized, the quote/proposal page appears. If any workflow processes have been setup to trigger approvals based on criteria, they will typically occur at this point, and the **Approval Stage** inside the Quote/Proposal record will be set to **Approval Required**. As soon as the Approval Stage changes, the **Submit for Approval** button becomes available and you can submit the Quote for approval to management if any approval processes have been configured. Once approved, the Quote/Proposal is generated and presented.

Opening Cart in Read-only mode

This feature allows you to open your Product Configuration in read-only mode. In read-only mode you are only able to see the line items in the cart, you cannot edit any fields. All the action buttons are disabled in a read-only cart. To open the read-only cart, you can use a separate **Configure Product** button with read-only access on the Quote Details page that your admin must configure. When you open a cart in read-only mode, no new product configuration is created on the Quote Details page.

You can perform the following tasks in a read-only cart:

- Search for products on the cart.
- Open or create new Cart Views.
- Use advanced filters.
- Save Cart Views with the filters.
- Close the cart

You can open a cart in read-only mode even when the pricing of the line item is pending. When you open such a cart, the priced line items are displayed and a progress bar is

displayed with the status of the ongoing pricing process of the remaining line items. The action buttons remain disabled until you exit the read-only mode.

About Product Configuration

Product Configuration is created after you click the **Configure Products** button on the Quote Details page. Product Configuration stores the details about the product you configure on the cart, including the options, attributes, and pricing configuration. After the products are configured they are added to Product Configuration the **Configurations** section on the Quote Details page. The status of the Product Configuration reflects the state of the configuration on the cart.

The following table describes the status of the Product Configuration based on the status of the cart.

Product Configuration Status	Description
Ready For Approvals	After you have finished the configuration and the configuration requires approval.
Ready For Finalization	After the configuration is approved and the cart can be finalized.
Finalized	When you finalize the cart.
Superseded	When you reconfigure a finalized cart then the status of previously finalized configuration changes to **Superseded**
Saved	When you save the cart.
Pending Approval	When you submit the configuration for approval.

CPQ clones the Product Configuration when you reconfigure a finalized cart and creates a new version of the Product Configuration. When you reconfigure a finalized cart, the status of previous Product Configuration is set to **Superseded**. The status of the cloned Product Configuration then reflects the current status of the cart. The Product Configuration is deleted when you abandon the cart.

> ⓘ If you want to change the **Account** associated with an existing quote with finalized or saved product configuration, you must abandon the cart and reconfigure it.

Disabling Cart Versioning

When you disable cart versioning, only one product configuration is created on the Quote Details page. Disabling Cart versioning disables the creation of **Superseded** configuration, if you reconfigure a cart after finalizing it, the existing product configuration is updated. If cart versioning is disabled, then on abandoning the cart the configuration is deleted and all changes done so far on the cart are lost. The prompt message on the click of **Abandon** informs you about the same if Cart Versioning is disabled.

Conga recommends you to enable **Disable Cart Versioning** if you do not need to maintain multiple configuration records and it also improves the cart launch time for the saved cart.

To disable cart versioning, select the **Disable Cart Versioning** checkbox on the Quote Details page.

> ⚠ It is not recommended to change the setting on an inflight quote.

Revalidating the Product Configuration

You must revalidate your saved quote for the product structure changes by clicking **Revalidate**. Saved quotes created in the past might have a product for which structure, rule, or price has been changed. The changes like addition or removal of options in bundle structure. This can affect the validity of such a quote when you reopen the configuration. When you open such a saved cart, CPQ shows a message informing you that there are changes to the products in the cart that must be revalidated. Upon clicking **Revalidate**, CPQ displays a popup listing the products that are changed.

The products on the revalidation popup are grouped into the following sections:

- Product Structure changes: Products in this section upon revalidation are marked as *Pending Configuration* and you must reconfigure such product before proceeding.
- Pricing Changes: Production in this section upon revalidation are marked as price pending and must be repriced.
- Changes provided by the Revalidation Callback: Products in this section are sent to the Revalidation Callback to be revalidated using custom logic defined in the callback. For more information on the callback, see Revalidation Callback Class

> ⓘ If the product is part of a collection, the revalidation is applied to the entire collection.

Revalidation is of the following types depending upon the changes made to the product:

- Hard: CPQ forces you to revalidate the cart while disabling all actions except **Save**, **Quick Save**, **Abandon**, and **Close**.
- Soft: CPQ displays a warning on finalize.

The following table describes the changes and type revalidation action you must perform.

Change	Revalidation Type	Notes
Major product version change	Hard	For example, changing the Product Version from 1.00 to 2.00
Minor product version change	Soft	For example, changing the Product Version from 1.00 to 1.01
Inactive product	Soft	For products that are not active after saving the quote, CPQ automatically deactivates the price list item and displays a message on the cart. When you revalidate, CPQ removes the product from the cart.
Inactive price list Item	Soft	
Expired price list Item	Soft	
Deleted price list Item	Soft	
New price list item	NA	CPQ does not detect new price list items automatically. You must force pricing for that line item to see the new prices. For example, updating quantity.
Changed List Price in the price list item	NA	You must not change the List Price in a live price list item. Conga recommends creating a new price list item and discarding the old price list item

When you create a new or change the list of a price list item, revalidation is not required. You must reprice the cart manually to see the changes as CPQ does not automatically detect such changes in price list item for save quotes.

To revalidate the cart

1. When you click **Revalidate** on the Cart page, a popup is displayed in which you see the products that are changed.
2. Do one of the following:
   - Click **Apply** to accept the changes.
   - Click **Cancel** to proceed with the previous structure of the product.

You see the **Revalidate** button on the previously saved Cart page when the Admin has made changes to the Product Configuration and has updated the Version field of the product.

> ⓘ When you click Revalidate, CPQ shows *No records to display* a message in case if there is no change in the product structure.

Displaying revalidation messages

When a price list item for the bundle or options is revalidated, CPQ warns you with the message that some items may get changed upon revalidation.

CPQ displays the following revalidation messages based on the business scenarios.

For example,

- When an optional product is removed from a bundle, the system shows the message:
  ```
  "Product Structure for the following product(s) has changed. Do you want
  to revalidate the product(s)?"
  ```
- When a line item is expired, the system shows the message:
  ```
  "The following line items have invalid price list items. During
  revalidation, some items in the cart may change or be removed."
  ```
- When a version is changed in the quote, the system shows the message:
  ```
  "Some items in the cart may have changed. Please revalidate the cart."
  ```

For more information, see Configuring Field Set Settings.

Using Express Proposal

The Express Proposal feature allows you to generate and send proposal in fewer clicks. After you add and price the products in the cart, click **Express Quote** to finalize the cart, select a template, generate the quote and email the document to the customers, and mark the quote as presented. You can use the Express Proposal from Catalog, Configuration, and Cart pages by clicking the **Express Quote** button. Typically, you must finalize the products on the cart page, go to the Quote details page and complete the steps to generate the document first then present the quote to the customer. This feature allows you to complete all the tasks on one page rather than navigating several.

> ⓘ   The administrator must add this button to the Catalog, Configuration, and Cart pages. Also, the Checkout popup is displayed only if the administrator has configured it. For more information, see Configuring Express Proposal.

Click the **Express Quote** button after you configure products and complete the pricing. If there are no warnings or errors, CPQ either automatically executes the tasks in the order shown in the following table, or displays the Express Quote popup listing the tasks mentioned in the below table depending on the feature's configuration.

Order of Execution	Task	Description
1	Finalize the proposal	The proposal is finalized in asynchronous mode. You can track the progress of task completion using the Async Progress Tracker feature on the Quote Details page.
2	Generate the proposal	The proposal is generated in PDF format only, using one of the following templates: • The default template defined in **Default Email Template Name** in Proposal System Properties under Custom Settings, • A single template filtered using query template filters for the quote specifically. • The template you select from the Checkout popup.

Order of Execution	Task	Description
3	Email the proposal	By default, the email is sent to the quote owner. You can search and add more recipients from the contacts existing in the org. You cannot send the email to IDs that are not defined as a contact in the org. In this case, create a contact for that external ID first.
4	Mark the proposal as presented	Select the checkbox to change the status of the quote to Presented.

If the popup is displayed, click the **Proceed** button to start tasks.

Express Quote

1. Finalize Proposal   The Proposal will be finalized in asynchronous mode.

2. Generate Proposal   Please select a Template. *   `3 tier details`
Proposal will be generated using the selected template.

3. Present Proposal   Proposal will be emailed to the selected recipients.

Email recipients for the Proposal *   `Please enter email recipients..`

Mark Proposal as Presented   ☑

Proceed   Cancel

Do not use this feature:

- To generate the document in any format other than PDF.
- To merge the generated document with any other document.
- If you require any approvals before finalizing the cart.

Finalizing Quotes

This section explains the following topics:

- Repricing Quotes
- Analyzing Quotes
- Auto-Synching Cart Line Items to a Quote
- Generating and Presenting Quotes
- Accepting Quotes
- Synchronizing Quotes with Opportunities
- Activating Orders

Repricing Quotes

Use the Reprice Quote feature to reprice all the parameters with a single click from the Quote/Proposal page.

Pricing is determined by Quote header level parameters. Normally after the first time Quote configuration is completed, and you were to adjust the Quote level parameters, you had to go back to the shopping cart to Reprice. Doing this one by one and then repricing is time-consuming and ineffective. With the Reprice Quote button, there is no need to do this, you can change product pricing and/or rules, and click the Reprice Quote button to reprice all the parameters without going to the cart page.

To reprice a quote from the Quote/Proposal page

You must complete a quote configuration at least once.

1. Navigate to the **Proposals** tab and select a proposal.
2. Click **Reprice Quote**.

All the quote level parameters are repriced on the Quote/Proposal page.

Analyzing Quotes

Analyze Quote page helps you to view and manipulate the cost and profitability of each **Line Item** and **Summary Group Item**, one at a time.

> ⓘ **Enhanced Analyze Quote Page**
> CPQ shows the following UI improvements in the Analyse Quote page:

> The column names or headers are available for the optional columns. If you configure a column from **Config Setting** > **Display Column Setting** > **Display Type : Option Cost & Profitability Cost**, then on clicking **Analyze Quote** from the cart shows **Optional Columns** on the page.

Add Analyse Quote button on the Cart

Go to **Config Settings** from (All tabs) > **Display Action Settings** and setup an *action* button for **Analyze Quote**.

Screen Elements

The following illustration shows the Analyse Quote page, calling out the key elements appearing on this page.
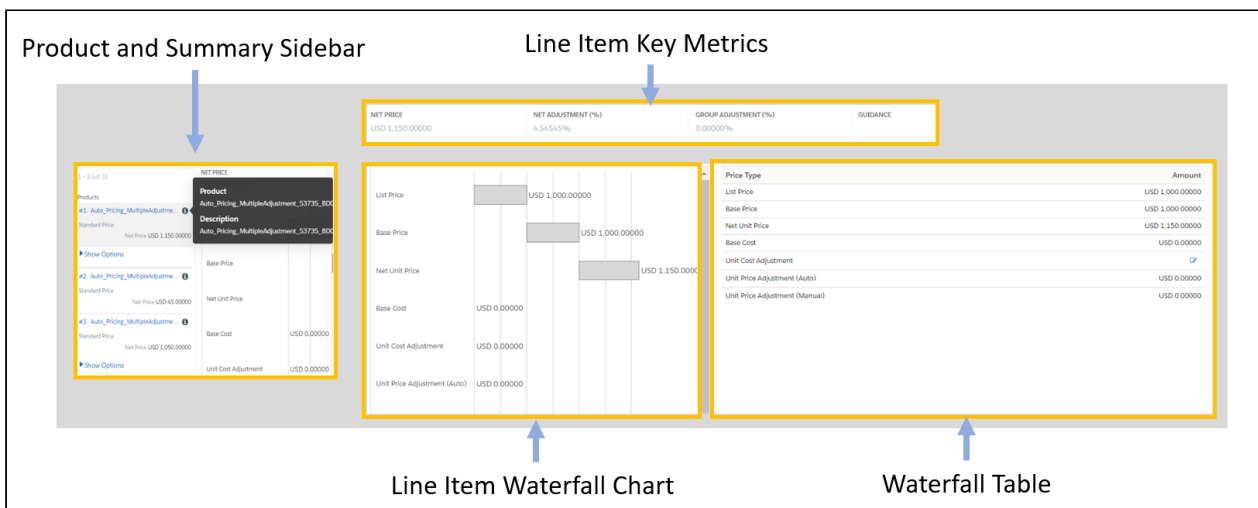
Product and Summary Sidebar: This section displays a list of Line items and Summary Group Items the way you would see it on the cart. You can select any of the line items or the summary groups to see its corresponding waterfall chart and cost breakdown.
All information visible on this page is either for a single Line Item or a single Summary Group Item. You can see product name and its description by hovering over the info icon next to product.

Line Item Key Metrics: Fields that are useful in deriving the costing profitability such as Margins, Discount etc. can be added to this Key Metrics.

Line Item Waterfall Chart: Various Line item Currency fields can be used to plot the Waterfall chart. It is basically a bar chart where Line Item Fields are plotted vertically and their values (Price) are plotted horizontally.

You can see two kinds of bars:

- **Price Point:** These bars begin from the base of the y-axis. Usually the Line Item fields such as List Price, Invoice Price etc. are the Price Points in the Waterfall chart.
- **Adjustment:** These bars are adjustments to the Price Point or Costs. These bars start from the endpoint of the previous bar and based on the type of adjustment, whether negative or positive, their endpoint is derived. As shown in the following illustration, Cost Markup is an addition to the Base Cost and hence the Adjustment bar starts from the point Base Cost ends. Similarly, Adjustment is a deduction from the Base Price which starts from where the Base Price ends but goes inward indicating a negative adjustment.
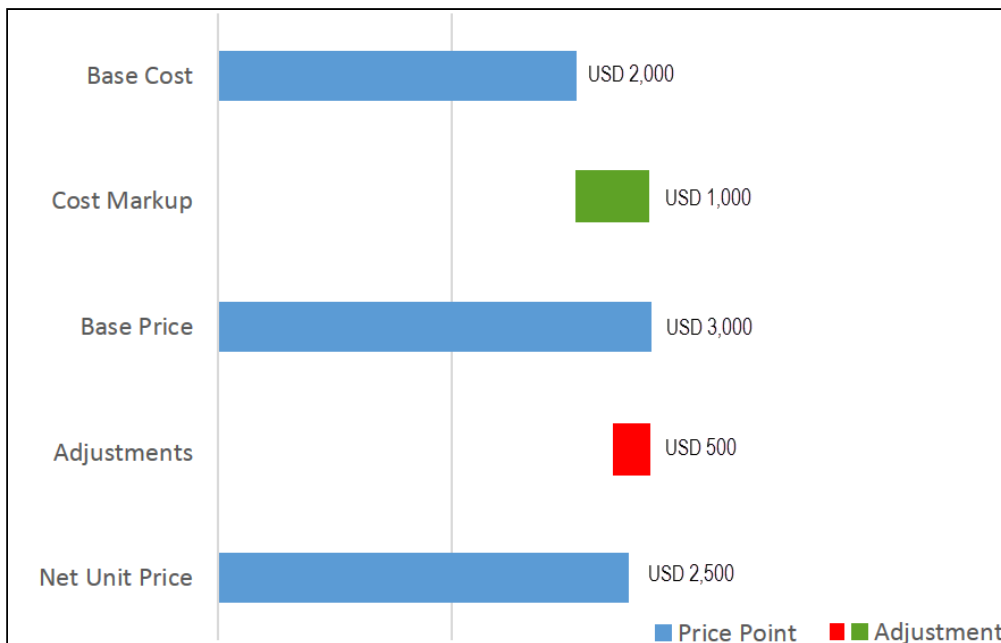
Waterfall Table: This table translates the Waterfall Chart with all cost breakups. You can override certain costs and click **Reprice** to see the Waterfall with a revised cost. In the "Amount" field, the currency value is left aligned on the Analyze Quote UI page.

After analyzing the deal, you can also collaborate with multiple users to finalize the pricing. For more information, see About Quote Lifecycle Collaboration.

ⓘ CPQ uses the Base Price field of Line Item to determine what the Currency Code to be displayed in the cart.

As you do not want Base Cost to be seen by specific users for various reasons but Base Price to be made available to all users. Therefore, CPQ uses Base Price rather than Base Cost to determine the currency code to be used. The currency code as set in the user locale is displayed for all the currency fields.

Auto-Synching Cart Line Items to a Quote

When Auto-sync is turned on, the system does validate for errors and auto-syncs the cart lines with the Proposal Lines. You can view the synced line items in the Quote/Proposal detail page under the Line Items related list. Auto-sync is done when the following conditions are satisfied:

- No error produced by the Validation callback
- No Constraint Rules error
- No line items in price pending state
- No Must Configure product is in configuration pending state

Generating and Presenting Quotes

You can generate that document from the quote and present that to the customer.

The section explains the following topics:

- Generating Quotes
- Using Proposal Document Generation
- Presenting Quotes
- Sending Documents for eSignature Using Conga Sign

Generating Quotes

This scenario guides you to generate a Quote/Proposal document based on the information you provided.

After the quote is finalized, and if any approval processes have been configured in your organization, the **Approval Stage** changes to **Approval Required**. As soon as the Approval Stage changes, the **Submit for Approval** button becomes available and you can submit the Quote for approval to management. For an overview of the various Approval stages, see Approval Stages.

After the quote is approved by an approver, the Approval Stage changes to *Approved*. You can now generate a proposal document to present to a trading partner. When you initiate the **Generate** action, a screen appears allowing you to select additional information about the document to be generated. Additionally, if document protection has been enabled, a document can be generated with the appropriate protection options.

To generate a proposal document

You must ensure that the Approval Stage is *Approved*.

1. Click **Generate** to generate a Proposal document.
2. From Options > 1. Select Output Format, select one of the following formats:
   - *DOC*: To generate an MS Word document.
   - *RTF*: To generate a proposal document in Rich Text Format.
   - *PDF*: To generate a PDF protected proposal document.
3. Select a template from the list.
4. Click **Generate**

   or

   Click **Submit**, if you have a large quote. Such document generation takes more time and you must refresh the page to see the generated document.

   > ⓘ The **Submit** button is only visible if the Large Document Generation is configured in your org by the admin. For more information, see Configuring Document Generation for Quote.

The proposal document is generated and can be found in the **Notes and Attachments** related list. The proposal document is automatically attached to the Quote and can be viewed via the View action link. The Approval Stage changes to *Generated*.

You can now present the quote you generated.

Using Proposal Document Generation

Proposal Doc Gen provides the ability to select a template, select the output format, merge the Quote/Proposal document with additional documents and sequence them, email the collated file with attachments and preview the different versions of documents. As a Sales Rep, you can invoke the new wizard from the cart as well as from the Quote/Proposal header page.

This reduces the number of clicks and provides an integrated experience from the shopping cart as well as the Quote/Proposal header. All the functionality resides in a single-page

application that is smooth and easy to use. Consider the following scenarios where this feature can be very useful:

Use case 1: After confirming the product selection and pricing, as a Sales Rep, you would like to instantly generate a Quote/Proposal from the Cart, merge some marketing material and product data sheets with my generated Quote/Proposal and send the document in an email to the customer.

User case 2: After receiving the email that my quote (that I had submitted earlier for approval) has been approved, you want to quickly generate the Quote/Proposal document, merge some marketing material and product data sheets with my generated proposal and send the document in an email to the customer.

> ⓘ For information on how to configure Document Generation, refer to Configuring Document Generation for Quote.

The process flow of the Doc Gen is described below:

Accessing the Doc Gen Wizard

You can access the Doc Gen Wizard from the Quote/Proposal header by clicking **Send Proposal** button, which is available with the proposal management package. The major two differences in accessing the Doc Gen Wizard from the cart are that you must choose a proposal template to generate a proposal document and you get quick access to action buttons, such as **Go to Pricing**, **Add More Products**, **Installed Products**, and Go to Proposal below the Quote/Proposal name

Generating a Quote/Proposal document

To generate a quote document, click **New Proposal Document**. A popup appears where you can choose or search a template for your Quote/Proposal document (filtered using Query Templates). You can choose the Output Format for your document. Only *doc*, *docx* and *pdf* formats are supported, depending on the format your admin has configured, using Proposal Document Output Format. Using Proposal Document Output Format, if you've chosen *docx* and *pdf*, the drop-down list shows both. If you do not define any format, the system takes *pdf* as the default output format.

You can click **Generate** button to generate a new Quote/Proposal document. Upon clicking **Generate** button, CPQ generates documents in sync mode and you remain on the popup till the document is generated.

When you need to generate a document for a quote with a large number of line items, you can use **Submit for Generate(Async)**. CPQ generates the documents in async mode when you click **Submit for Generate(Async)** button. When CPQ processes documents in async mode, the popup is closed and you are directed back to the Doc Gen page. Document generation may take few minutes, you must refresh the page to see the generated document. The preview of the generated document is displayed on the right pane. If you generate multiple documents, CPQ displays them in ascending order of Created Date unless the administrator has enabled **Sort Documents Descending** in Proposal System Properties.

> ⓘ The **Submit for Generate(Async)** button is displayed only if the administrator enabled **Enable Submit Merge Call** setting in Proposal System Properties.

You can also select a default document that is automatically generated upon clicking the **Send Proposal** button. The default document is generated when Fast Doc Gen is enabled. The default document is generated using a default template that is defined in the org by the administrator.

> ⓘ The document is generated automatically only if the administrator has enabled **Enable Fast Doc Gen** Proposal System Property. For more information, see Configuring Document Generation for Quote. You cannot use Fast Doc Gen feature in a quote in Smart Cart flow.

The Quote/Proposal document generated using the Doc Gen Wizard follows the naming convention as: *Quote/Proposal Name + Template Name + Date stamp*. Such documents appear in the left pane of Proposal Doc Gen wizard and as attachments in the **Notes & Attachments** related list.

Renaming and deleting a proposal

You can use the buttons **Rename** and **Delete** to rename and delete the proposal respectively. Click the menu icon(⋮) to display the actions.

Previewing generated documents

Once generated, the system automatically previews the generated document on the right pane of the window. In the case of multiple documents, CPQ previews the document that was generated first. You can preview other documents by clicking the name of the generated document. However, if the administrator has enabled the **Sort Documents Descending** proposal system property, CPQ previews the document that was generated last.

Note that Preview is available only for documents created in *PDF* format. While using Files, the documents are not previewed automatically. You must click the thumbnails of the documents to preview them.

If the documents are generated asynchronously or encounter a timeout limit, a record in the preview related list is generated on the Quote details page.

> ⓘ Timeout limits may exceed when you generate a large and complex document. You may define the timeout limit in **Merge Call Timeout Millis** in Proposal System Properties.

Merging with additional documents

You can add additional documents and merge them with the generated document.

Adding documents from Quote

You can attach additional documents to the Quote/Proposal by clicking **Add from Quote**. This button fetches all the documents (that are not generated using Proposal Doc Gen) from the **Notes & Attachments** related list of a Quote/Proposal. Select a document and click **Add to Merge Docs** to allow the system to consider this document for merge with the generated Quote/Proposal document. The merging happens only after you click **Merge Documents** on the right pane.

Adding URL to the documentation

You can add document hyperlinks from external sources and merge them with the Proposal. Click **Add URL** to launch a pop-up that gives you the ability to enter valid document hyperlinks and its corresponding Title. You can add multiple URLs by clicking **Add Another** link at the bottom of the pop-up.

> ⓘ Ensure that you have added the endpoint for the document URL that you want to list on the Proposal Doc Gen from **Setup** > **Security Controls** > **Remote Site Settings**.

As soon as you attach more than one document to your Quote/Proposal (apart from the generated Quote/Proposal), the right pane of the window grays out and enables a single button called **Merge Documents**. You can choose to merge all the generated and offline documents in the **Documents to be Merged** section and turn them into a single document. After your documents are merged, the system displays the collated document in the Preview pane on the right. The merged document appears as a record under the **Document Collate Infos** related list on the Quote/Proposal.

> ⓘ During the proposal workflow, the system detects the acceptable file type (For instance, .docx, .doc, .pdf) and displays a distinct icon for the file format.
> Also, when you try to merge a file with an unsupported format or the file size is more than 4 MB, the system alerts you with an error message.

Adding a local file from computer

You can add attachments from your local storage to the Quote/Proposal by clicking **Browse to documents on your computer**. You can simply drag and drop an offline document to the Doc Gen wizard and the system considers it for merging with the Quote/Proposal document.

> ⓘ The size limit of the file you can upload from local storage is 3.5 MB.

Sending the generated document to the customer

After the sales rep has reviewed, merged and finalized the content in the final Quote/Proposal document, he can send the collated document to the customer for further actions. Buttons like **Email** and **Download** are available for the following purposes:

Action button	Usage

Email	Use this button to send the Quote/Proposal (or merged) document to your customer for review. The dialog box allows you to provide the following information:
	
	    • **To**
	    • **CC**
	    • **BCC**
	    • **Subject**
	    • **Email Folder**
	    • **Email Template**
	    • Any additional documents.
	
	You can search and select Contacts that you want to add in the **To**, **CC**, and **BCC** fields. To search the Contact name, enter the first 3 letters of the name and you can see the matching results in the drop-down. CPQ, by default, populates the email information of the **Primary Contact** field in the **To** field.
	
	    ⓘ You can only edit the email body of Email Templates of type *Text*. CPQ displays a warning when you select any other template.
	
	If you have defined an Email Signature in **My Email Settings**, CPQ automatically adds that at the end of the email body.
	
	You can select the **Mark Proposal as "Presented"** checkbox to ensure that the Approval Status of the Quote/Proposal is changed to *Presented* and the **Presented Date** field is updated after you send the Email.

Download	Use this button if you want to download a local copy of the generated Quote/Proposal (or merged) document.

Presenting Quotes

After generating a proposal document, it is presented to the trading partner. The system sends an email with the generated Quote attached. If the email is sent, the Approval Stage will be automatically be set to *Presented*. If you prefer to print or present the Quote a different way, you can manually set the Approval Stage to *Presented*.

To present a quote/proposal

The Approval Stage must be in *Generated* stage.

1. Click **Present**. The Present Proposal page appears.
2. Select the proposal document to be attached and click **Next**. The **Send an Email** page appears.
3. Enter details as you would for an email and click **Send**. A confirmation popup appears. For more information on email templates and defining custom email templates, see Managing Email Templates. You can select an email template, attach additional files, and perform a spell check before sending an email. The system will prompt whether the email was sent.
4. Click **Yes**.

> (i) You must add contact details in Account to present a quote.

The email is sent and the **Approval Stage** status changes to *Presented*. The **Accept** button is enabled.

After the quote has been accepted by the trading partner, click the Accept button.

Sending Documents for eSignature Using Conga Sign

After you complete generating and presenting the documents, you can send documents to gather customer signatures using Conga Sign. On the Quote Detail page, click the **Send with Conga Sign** button. You are redirected to the Conga Sign application. For more information, see Sending Documents for eSignature.

You can perform the following task while using Conga Sign:

- Send a document from the attachments in the quote or by uploading them from the local machine.
- Use documents in Word or PDF format.
- View the list of recipients in the **Conga Sign Recipient** related list.
- Receive email notification of every action taken by the recipient on the sent document.
- View status of the transaction in the **Conga Sign Transaction** related list. The status changes according to the action of the recipient such as opening, signing, or rejecting documents.

Accepting Quotes

After a trading partner has accepted a proposal, you can finalize a quote/proposal by accepting the proposal, synchronizing products and prices with the related Opportunity and then create an Agreement.

After the quote/proposal has been presented to the trading partner either manually or via an email, the **Accept** button is enabled. Selecting Accept signifies that the trading partner has accepted the Quote. If the current Quote is not primary, clicking the **Accept** button will make all other quotes non-primary and the current one primary.

Simultaneously, the line items in the **Summary** related list is synchronized back to Opportunity Products for forecasting purposes.

> ⓘ The related opportunity must have a Price List associated with it or else the summary items will not synchronize. The products do not need an entry in the Price List, but the Opportunity must be associated with a Price List.

Alternatively, if the synchronization is not required to happen automatically, you can choose when to synchronize with the Opportunity by using the **Make Primary** and **Synchronize with Opportunity** buttons.

To accept a Quote/Proposal

The Approval Stage must be in *Presented* stage.

1. From Actions, click **Accept**. The Approval Stage changes to **Accepted**.
2. Do one of the following:
    - To create an agreement, click **Create Agreement**.
    - To create an agreement with line items, click **Create Agreement with Line Items**.

- To synchronize the quote with an opportunity, click **Synchronize with Opportunity**.
- Synchronizing Quote/Proposal With Opportunities
  Synchronization ensures that both the Quote/Proposal and Opportunity accurately reflect the current state of the Quote. A best practice for sales pipeline reports and forecasts in Salesforce is to display the amount of revenue and the products or services that are forecasted to be sold.

The contracting process begins with the creation of an agreement. For detailed information, see Creating an Agreement.

Synchronizing Quotes with Opportunities

Synchronization ensures that both the Quote/Proposal and Opportunity accurately reflect the current state of the Quote. A best practice for sales pipeline reports and forecasts in Salesforce is to display the amount of revenue and the products or services that are forecasted to be sold.

Salesforce provides forecast reports that drive off of the amount of the Opportunity and the associated Opportunity product records. Opportunity products are stored in a standard Salesforce object and represent the line items for an Opportunity. When using Salesforce without Conga, products are added to the opportunity manually or by synching with a standard Salesforce Quote record.

CPQ can synchronize Proposal Line Items from a Quote Proposal to the related Opportunity. This action updates the Opportunity Amount and maintains accuracy between the Quote/ Proposal and the Opportunity, both on the record and in reports. This is especially important if you have configured sales reports using Opportunities with Products. With Conga, they can continue to use these reports and the deep functionality that CPQ provides.

When a Quote/Proposal is synced with an Opportunity, the Proposal Line Item records are copied to the Opportunity Products related list. The Amount of the Opportunity will reflect the summed total of the opportunity products. The Sales Price field on the Opportunity Product record is populated by the Proposal Line Item.Net Price field.

While a quote/proposal and an opportunity are synced, any addition or change to the list of products in the quote/proposal syncs with the list of products in the Opportunity.

If a quote/proposal is re-configured and the shopping cart is finalized, the new proposal line items will be copied to the opportunity's product related list.

- Assigning the Default Pricebook

    A Pricebook is the standard Salesforce version of a price list or container of products and pricing. In CPQ, the Price List object is used as a pricing container. Standard Salesforce synchronization requires that a Salesforce Pricebook is assigned to the Opportunity to enable synchronization between Quote and Opportunity.

- Marking Quotes as Primary

    An opportunity can have multiple quotes, but it can only sync with one quote at a time. The sync process looks for Quote/Proposal records where the Primary field is marked as true.

- About Auto Sync and Manual Sync

    The Synchronize with Opportunity action button is visible on a Quote/Proposal that is marked as Primary.

Assigning the Default Pricebook

A Pricebook is the standard Salesforce version of a price list, or container of products and pricing. In CPQ, we use the Price List object as the pricing container. Standard Salesforce synchronization requires that a Salesforce Pricebook is assigned to the Opportunity to enable synchronization between Quote and Opportunity. The Pricebook may be assigned to the Opportunity manually or automatically using a trigger. In either case, the Standard Price Book should be used.

To assign a default pricebook

You must have an existing Quote/Proposal created from an Opportunity.

1. Go to the **Opportunities** tab and select an existing opportunity.
2. Scroll down to the Products related list, and click **Choose Price Book**.
3. From the Price Book picklist, select **Standard Price Book**.
4. Click **Save**.

A standard price book is assigned to the opportunity. Go to the Quote/Proposal and make it Primary.

Marking Quotes as Primary

An opportunity can have multiple quotes, but it can only sync with one quote at a time. The sync process looks for Quote/Proposal records where the Primary field is marked as true. To ensure that only one Quote/Proposal is marked as Primary at any time, CPQ provides a

Make Primary action button. The button is conditionally displayed on a Quote/Proposal page if:

- There is an Opportunity related to the Quote/Proposal
- The Quote Proposal is not already marked as Primary

The first Quote/Proposal created on an Opportunity is automatically marked as Primary. When the Make Primary action is invoked with the button on a Quote/Proposal, the Primary checkbox on any other Quote/Proposal related to the same Opportunity is unchecked.

> ⓘ   When a second Quote/Proposal is related to an Opportunity, it must be made Primary before configuring and finalizing products.

To make a quote as primary

You must have an existing non-primary quote/proposal created from an opportunity.

1. Go to the required quote.
2. Click **Make Primary**. The Make Primary page is displayed.
3. Click **Continue** to make the quote as primary.

About Auto Sync and Manual Sync

To manually sync the Quote/Proposal click the **Synchronize with Opportunity** button on the Quote Details page, which is visible on a Quote/Proposal that is marked as Primary.

To automatically synchronize Primary Quotes, enable the **Auto Sync with Opportunity** setting in **Proposal System Properties** custom setting. This setting syncs Quote/Proposals that are marked as Primary each time the shopping cart is Finalized. CPQ syncs the Quote/Proposal with opportunity again each time you click **Accept Quote** when **Auto Sync with Opportunity** is enabled.

Activating Orders

Once you have accepted the Quote/Proposal, an Order is created with the Status = *New*. All the Proposal Line Items are copied to the Asset Line Items and Order Line Items. To proceed further with creating Assets for the products/services listed in your Quote/Proposal, you must activate this Order.

You can activate an Order by following any of the below-mentioned procedures:

- By selecting **Auto-Activate Order** check box on the Quote/Proposal page:
  If you choose this option, once you accept a Quote/Proposal, the Order is created and activated simultaneously.
- By manually entering an **Order-Activation Date**:
  If you choose this option, you have to manually enter a Date and Time in the **Order Activation Date** field on the Quote/Proposal page.

Once activated, you can see the status of the Asset Line Items and Order Line Items is changed to *Activated*. See Managing Assets for more details.

Managing Assets

Asset Management is based on the order information that you have already defined in your sales quote and the resulting contracts.

When your customers agree to purchase a product, the product changes from an agreement line item to an order line item in CPQ. The status of the agreement in this stage is *Accepted* and the order is now ready to be activated and realized as an asset for that customer. After you receive payments for an order is when the order line item changes to an Asset line item.

With Asset-based Ordering, you can

- create quotes for new products and services based on existing assets
- create quotes to modify existing products and services
- modify in-process orders that have been submitted for fulfillment
- renew, change, swap, and terminate an existing service
- have visibility into the asset transaction history during customer interactions

After being processed and fulfilled, new quotes and orders result in new assets that are listed on a customer's account and a line item from an asset becomes an Installed Product. You can access the Accounts page to see a customer's information and their purchase history.

The assets are created upon finalization of a Quote/Proposal and/or activation of an Agreement. If your product contains Usage Tiers and Attributes, there might be a delay for the system to create these records on the Proposal Line Items. You must refresh the Quote/Proposal or Agreement page and wait for the system to finalize the configurations before accepting a Quote or activating an Agreement.

In this Section:

- About Assets and Asset Line Items
- About Asset-Based Ordering Flows
- About the Installed Products Page
- Viewing Assets from an Account
- Viewing Installed Products in Different UIs
- Managing Views for Assets Grid
- Searching Assets
- Displaying Assets from the Account Hierarchy
- Pricing Assets
- Renewing an Asset
- Changing an Asset

About Assets and Asset Line Items

Any product or service that your customers buy, become that customer's assets. While your organization may have a unique and customized Order Fulfillment process, all the processes and procedures in Asset Management start with the Line Item in an order.

The following image describes the life-cycle of a Line Item in the Quote-to-Cash flow.
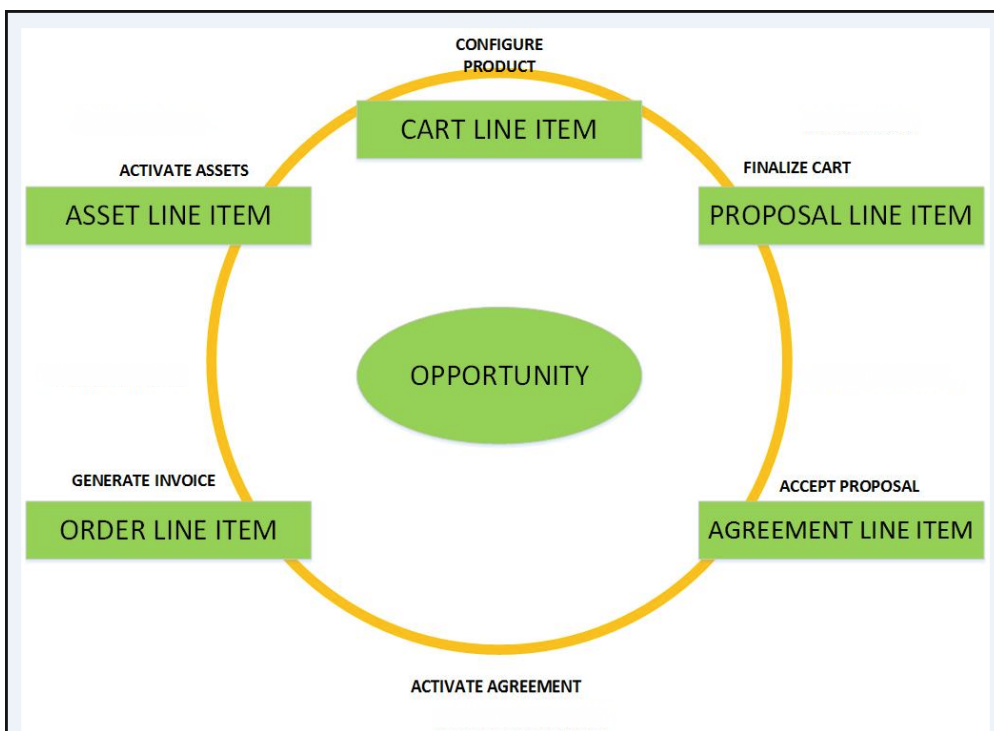
After your customers agree to purchase a product, the product changes from a Proposal Line Item to an Order Line Item. The status of the Quote/Proposal in this stage is **Accepted** and the order is now ready to be invoiced.

After you receive payments for an order is when the order line item changes to an **Asset** line item.

CPQ allows Customer Service and Sales Representatives in your organization to perform the following actions to manage assets.

1. Generate asset records from orders
2. Renew the term for an asset
3. Change the **Term**, **Quantity**, **Options**, and **Attributes** of a product
4. Cancel products and subscriptions
5. Swap one purchased product with another
6. Create quotes for new products and services based on assets
7. Create quotes to modify existing products and services
8. Get visibility into the asset life cycle during customer interactions

Before you manage a customer's assets, you must understand how they use Asset-Based Ordering.

About Asset-Based Ordering Flows

Before you start using Asset-Based Ordering, you must understand how you, as a Sales and Customer Service Representatives in your organization, can use the ABO functionality.

There are total 3 flows that you can consider for using ABO. Ensure that you understand and choose one of the flows to implement error-free ABO.

1. **Quote/Proposal Flow:** This is one of the signature events in Asset-based Ordering involving Quote/Proposal. This is the normal flow of going through the Quote/Proposal to an Order and then to the Assets. Once you accept a Quote/Proposal, the Order is generated. Upon activation of the order, assets are created.
2. **CSR Flow:** This is the flow designed to enable the Sales Rep to skip the creation of a Quote/Proposal. No signature event, such as creation of an Agreement or a Quote/Proposal is involved. A new button called **Asset Manager** is configured on the Accounts page to help the Sales Rep navigate directly to the Installed Products page. However, if you perform asset renewal through the Asset Manager flow, the **Use the Proposal End Date** option is not displayed on the Confirm Renewal intermediate page.
3. **Contract Flow:** This is one of the signature events in Asset-based Ordering involving Contracts/Agreements. The assets are created through Contracts/Agreements using the normal Contract lifecycle flow. Once you finalize a Contract (containing Agreement Line Items), the corresponding Asset Line Items are created.

Quote/Proposal Flow

In this flow, you configure the Quote/Proposal and finalize a configuration. Once the configuration is finalized, you present the configuration to the customer. Upon acceptance

from the customer, you click the **Accept** button on the Quote/Proposal. An order is created for this Quote/Proposal, which upon activation, creates the Asset Line Items with the *New* status. You can configure the Quote/Proposal again and navigate to the Installed Products page to view all the active assets. No custom triggers are required here.

Flow: Create **Quote/Proposal > Configure Products > Finalize > Accept >** Activate **Order > Installed Products** page.

CSR Flow

There can be scenarios when you do not want to configure the Quote/Proposal again to land on the Installed Products page. For these type of scenarios, you can configure the **Asset Manager** button on your Account page. Clicking **Asset Manager** creates an Order and navigates you directly to the Installed Products page. In this flow, you skip the navigation of going to the Installed Products page through the **Quote/Proposal > Configure Products**.

The following image illustrates the CSR flow from the Sales and Customer Service perspective.
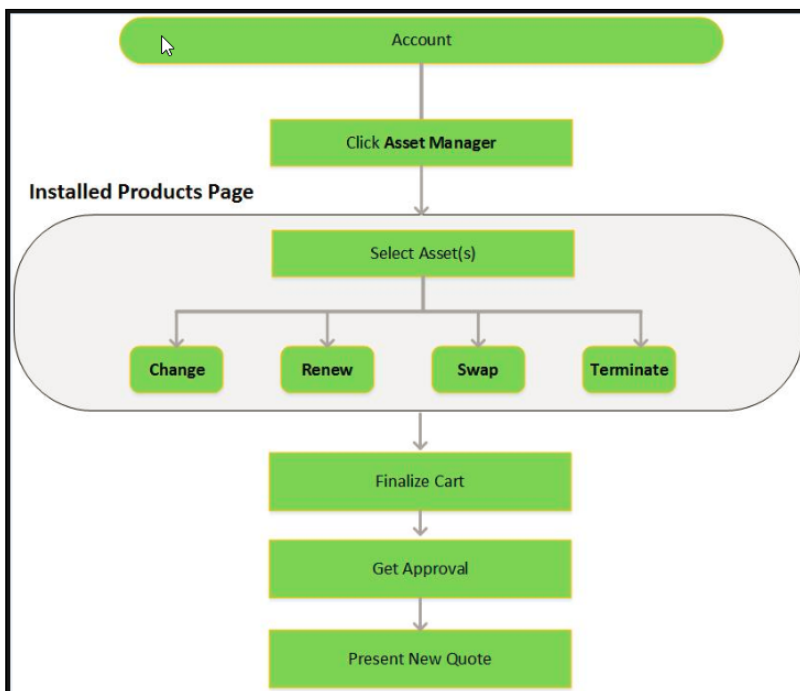
> ⓘ An order remains in the Draft status in spite of the fact that CPQ displays ready for activation date, hence ABO operation does not get applied on the asset line items. If you keep the status of an order as Draft, you need to Accept the order before starting the CSR flow.

Contract Flow

A contract contains Agreement Line Items, Asset Line Items or Order Line Items. In this flow, you follow the normal Contract Lifecyle flow of creating a Contract, presenting it to your customer and finalizing the Contract. Here, the Asset Line Items are created when you finalize and activate a Contract. CPQ provides the ability to synchronize the changes in Assets with the changes in a Contract (see details here). The changes you make inside a Contract (such as change in **Contract End Date**) will be reflected in the Assets contained in that Contract. Similarly, when you perform actions on your purchased Assets (such as changing the **Quantity** of an Asset), these changes will be reflected in the Contract.

Flow: Create **Agreement > Configure Products > Finalize** Quote/Proposal **> Accept** Quote/ Proposal **> Activate** Agreement **> Installed Products** page.

About the Installed Products Page

Installed products can include both products and services. A line item from an order becomes an installed asset if it is marked as an asset in the product record. With Asset-based ordering, you can create quotes and orders based on a customer's existing assets. Asset-based ordering is particularly useful when your business offers complex service products, such as phone services and equipment.

The Installed Products page lists all assets in decreasing order (▼) of the values in the **Created Date** column by default. You can sort assets dynamically, a single column at a time, by clicking the column header. You can switch the sorting to another column by clicking a different column header. Assets are sorted in the descending order first and a subsequent click sorts the assets in the ascending order (▲).

On the Installed Products page, you can Renew, Terminate, Swap and Change an existing standalone, fixed, or a configurable bundle asset. For each transaction involving ABO actions, the system creates a new order while you are navigating on the Cart. The status of the Asset Line Item is not changed until you finalize the Cart and activate the Order containing that Asset Line Item.

For more information on permitted configurations for the Installed Products page, see
Configuring Installed Products Settings.

> ⓘ **Note**
>
> Please ensure you add Allowable Actions for assets in order to perform Swap,
> Change, Renewal or Termination. For more information, see Defining Allowed Actions
> for Assets.

For a sales-driven industry with products such as equipment (new purchase) and service
(purchased for an equipment), you might want to achieve the following:

- As a manufacturing sales representative, for a service flow, you want to view the
  Renew and the **Terminate** button. For an equipment flow, you want to view
  the **Change** and the **Swap** button.
- As a subscription sales representative, you want to see the **Renew** button only when I
  make a purchase for a quote of type *renew*. For an add-on quote or an upgrade
  quote, you do not want to see the **Renew** button. For example, managing the renewal
  of a magazine subscription.

The **Swap** and **Renew** buttons are disabled for the superseded asset line items. CPQ checks
for the **Status** field of related asset line item and disables these buttons for an asset line
item on the Installed Products page. This is to prevent a sales rep from using the superseded
asset line items in the renewed opportunities and Quote/Proposals.

For example, you have an Asset A and you perform **Change>Config** action to create an
asset B. The relation between these two assets in the related asset line item object is
displayed as follows:

From	Relation Type (From)	To	Relation Type (To)
Asset A	Is Superseded By	Asset B	
Asset B		Asset A	Is Superseded By

After this transaction, **Swap** and **Renew** buttons are disabled for Asset A.

Viewing Assets from an Account

An account with assets has the **Asset Manager** button. Refer the configuration part and
ensure that the **Asset Manager** button is configured correctly in your org.

> ⓘ If you perform asset renewal through the Asset Manager flow, the **Use the Proposal End Date** option is not displayed on the Confirm Renewal intermediate page.

To view the installed products or assets for an account

1. Click **Asset Manager**.
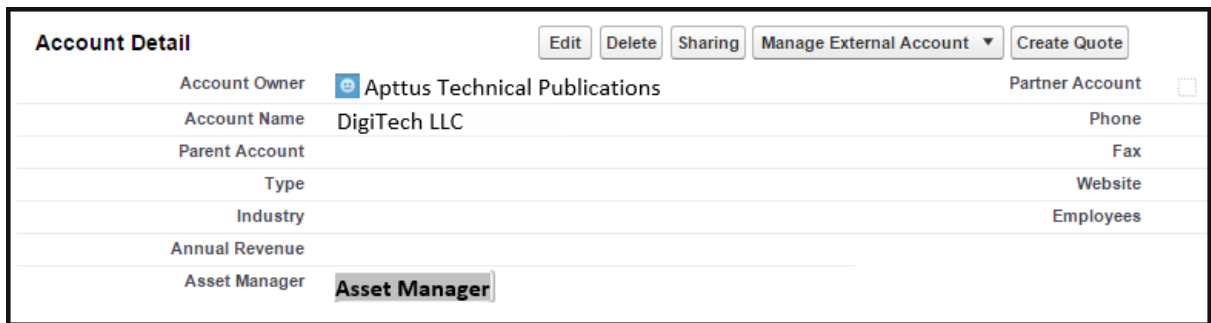
2. Verify the **Price List ID** in the URL. Click **Continue**.
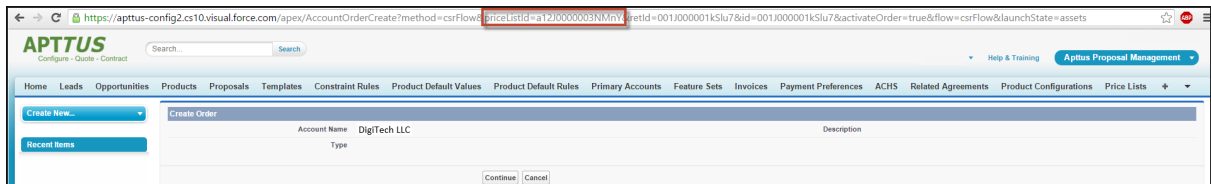
3. On the **Installed Products** page, select the assets that you want to manage.

> ⓘ **Note**
>
> If your administrators have disabled an asset action, the button is grayed out for that asset. For example, from the image above, if your administrator has not defined *Renew* as an allowed action for Advanced Analytics, the **Renew** button is grayed out and you cannot renew that asset for this customer. Also, if you select two or more assets from the list of installed products, the **Swap** button is automatically disabled.

You can Renew, Terminate, Swap, and Change an existing standalone, fixed, or a configurable bundle asset.

Viewing Installed Products in Different UIs

Installed Products page is redesigned for quick search of assets and better control of column visibility. The Grid UI for Installed Products gives better performance in terms of page load time and intuitive navigation.

> ⚠ Only the Asset Grid UI is supported on the Installed Products Page.

> ⓘ **Styling for Installed Products Page**
> You can apply column settings to the Installed Products page. You can change coloring, formatting, and styling of the asset grid page. This helps you customize the look and feel of the Installed Products page for better readability.
> You can see the **Search** bar adjacent to the installed products header area on the right corner on both Asset and Assets Grid pages.
> You can see a floating menu for the Asset Grid page similar to the Cart Grid page.
> You can see pagination at the top of the Asset Grid page, which helps proper page alignment. Also, notice that the left side search filter section gets collapsed by default.

On the Installed Products page, Primary Service columns are available for Equipment type assets only. From the new user interface, you can

- Expand or Collapse the product attributes

  > ⓘ CPQ displays the critical or primary attributes associated with the main bundle product on the Installed Products page. However, CPQ does not display the critical or primary attributes associated with sub-bundles on the Installed Products page.

- Use Pagination to control the display of assets on a single page and to extreme left or right of the view as chosen from the options
- Search using a product or option (with a full or a partial string
- Perform a basic search or an advanced search
- Create asset views
- View assets across account hierarchy

To enable the new interface, append *grid* at the end of the Installed Products URL.

For example,

```
https://apttus-config2.cs13.visual.force.com/apex/Cart?
cartStatus=New&oldConfigId=a1IW0000000gybHMAQ&configRequestId=a1cW000000044MrIAI&id=a
1IW0000000gyt7MAA&flow=LAngFlow&launchState=cart#/assets
```

should be changed to

```
https://apttus-config2.cs13.visual.force.com/apex/Cart?
cartStatus=New&oldConfigId=a1IW0000000gybHMAQ&configRequestId
=a1cW000000044MrIAI&id=a1IW0000000gyt7MAA&flow=LAngFlow&launchState=cart#/assetsgrid
```

Similarly, you can switch back from the grid UI to the classic interface by removing *grid* from the URL.

You can use the following features to navigate the Installed Products homepage if you are using the Assetsgrid (New UI):

Product Search: Enables you to search existing assets. Enter the name of the product and click the magnifier icon. All products that are relevant to the search string (full name of the product or partial name) are displayed. Click the (**+**) icon to use the **Basic** and **Advanced Search** options. You can also search an option product, all bundles with their options are displayed.

Account Hierarchy icon : Click the **Accounts Hierarchy** icon and select one or more a displays accounts hierarchy as per show assets settings. By default, the app will display all assets of the current account of the proposal.

Items per Page: You can select the number of assets that must be displayed on the home page of the Installed products page. You can select a maximum number of 200 items that must display on a page.

Managing Views for Assets Grid

This section provides information on managing user-level private views for the assets grid.

CPQ allows you to create views containing predefined filter values on the Installed Products page. These views help you filter and display asset line items based on your configurations. You can set the custom views based on many parameters such as product,

location, charge type, start date, end date, net price. However, you must avoid grouping numeric and pricing-driven fields.

> ⓘ If your administrator has created any view in the Admin UI and shared it with you, you can select the view. However, you cannot edit or delete the view created by your administrator. For more information, see Configuring Installed Products Settings.

To create a view

You can create a view for each flow.

1. Click **Installed Products**. The Installed Products Page is displayed.
2. Click the **Views** drop-down list and select **Create New View**. The Create New View dialog box is displayed.
3. On the Group By tab, select a value from the **Group By** drop-down. The default field is *Product*.

   > ⓘ The values on the **Group By** drop-down depend on the fields your administrator has added in the **GroupByFields** custom setting at **Setup > App Setup > Develop > Custom Settings > Installed Product Settings** or the **Group By** field on the ASSET VIEWS tab of the Installed Products settings on the Admin UI. For more information, see Installed Products Settings or Configuring Installed Products Settings.

4. On the Choose Cart Columns, drag and drop the required columns from the **Available** list to **Viewing** list.
5. Enter a name for the view in the **View Name** field.
6. Select the **Set as Default** check box to make this view as the default view on the Installed Products Page. If you set this view as default, CPQ overrides the out-of-the-box Default view.
7. Click **Save**.

To edit an existing view

1. Click **Installed Products**. The Installed Products Page is displayed.
2. Click the **Views** drop-down list, select the required view, and click **Edit**. The Create New View dialog box is displayed.
3. Make the required changes and click **Save**.

To delete a view

1. Click **Installed Products**. The Installed Products Page is displayed.
2. Click the **Views** drop-down list, select the required view, and click **Delete**. The view is deleted.

Searching Assets

CPQ provides the Search Products feature on the Installed Products Asset Grid page only and lets you search by option as well. Fully or partially searching the install base of the option name returns all the bundles with that particular option including nested bundle options. You can apply other filters to the install base in addition to the search based on the option name. If the product catalog does not have bundles with that option, it presents a message that bundles with that option could not be found in the install base. Option-based search works in accordance with existing features such as Asset Source, Account Hierarchy, and Pagination.

In the **Search Products** field, you can enter a keyword, option, option name, partial name, or special characters (single character, multiple characters, or a combination of characters with alphabets) to search assets. Based on the following values, CPQ determines which asset lines associated with a product must be searched:

- Product Name
- Product Family
- Product Code
- Product Description
- Configuration Type

After fetching results using **Search Products**, you can further filter your search using **Account Hierarchy** and **Filter By** functions. The **Filter By** function provides two options: **Basic Search** and **Advanced Search**. The **Advanced Search** allows you to define your own query to select asset line items. It uses only the Asset Line Item fields for the definition of the query. CPQ does not currently support searching records based on related objects such as attributes. The **Advanced Search** filters search results (**Search Products**) if there are any criteria applied while searching assets using **Search Products**. If there are no criteria applied, the **Advanced Search** directly works on asset line items and retrieves the first 20,000 records.

When you clear the search criteria from a secondary or tertiary level search, it does not impact the search criteria of higher level search. For example, clearing the search criteria of **Filter By** fields does not reset the search criteria of **Account Hierarchy**.

The current pagination on the Installed Products page supports only 20,000 records. If the install base has more than 20,000 records, you must apply a filter on the install base to see the relevant records. The filter can be **Search Products**, **Accounts Hierarchy**, or **Filter By**. If you do not apply any filter, CPQ displays only the first 20,000 records on the Installed Products page.

For example, the install base has 100,000 bundles (as counted by the bundle primary line). After you apply the **Search Products** filter, CPQ retrieves 45,000 bundles out of which CPQ displays only the first 20,000 bundles (as counted by the bundle primary line) on the Installed Products page. You can apply other filters (**Accounts Hierarchy** and **Filter By**) on this subset of 45,000 bundles to bring the search results further down to 20,000 bundles or less.

> ⓘ Alternately, you can directly apply filters (**Accounts Hierarchy** and **Filter By**) on the original set of 100,000 bundles. If that search retrieves under 20,000 records, all results are displayed on the Installed Products page. If that search retrieves 45,000 records, only the first 20,000 records are displayed and you must modify the search further to see all intended records.

Sorting Product Items Per Page

By default, you can sort 10, 15, 25, 50, 100, 200 assets per page. In addition, you can set the custom value in the **Config User Preferences** custom setting. This feature works in association with the search and filter functions to display search records per page. You can use the **Previous** and **Next** buttons to move to the next or the previous pages. You can also jump to a certain page using the page search component.

Displaying Assets from the Account Hierarchy

You can view all the assets of either the parent or the child on the **Installed Products** asset grid page and search them using various criteria.

To set the account hierarchy

1. Under **Custom Settings** > **Installed Product Settings** > **Show Assets**, specify **Parents, Children**.

> ⓘ   • If **Show Assets** is blank, on the asset grid page you cannot see an icon
>   for **Account Hierarchy** and CPQ shows only assets from the current
>   account.
>   • If **Show Assets** set to **Parents, Children**, on the asset grid page you can
>   see an icon for **Account Hierarchy** and CPQ shows assets from the
>   current account as well as from Parent and Children.

2. Add or update the Accounts that you want to be displayed in the **Account Hierarchy** screen on the asset grid page.
3. Execute the batch job in CPQ Console > Maintenance Console > Account Hierarchy, whenever you add or update the account's parent or create a new account with parent.
4. Click **Account Hierarchy** icon on the asset grid page. The **Account Hierarchy** pop-up opens.
5. Select the account for which you want to view the list of assets. The default account is always marked in bold in the **Account Hierarchy** pop-up.
6. Click **Apply** in the pop-up to see the list of asset for a particular account in the right pane. You can see the hierarchy of assets under the **Account Hierarchy** icon in the left pane.

Pricing Assets

Unless you override the **List Price**, the price of the asset depends on the values you enter for defined the Price List Item fields under the **Tax and Billing** tab. Before you make changes to an asset, consider the pricing settings done on the product PLI. For more information, see Defining Tax and Billing for Products.

If you select the **Is Asset Pricing** checkbox on the Proposal Line Item detail page, when you Renew, Swap, Change, or Terminate the asset, CPQ accounts for any list price overrides on the original order to compute the price of the asset.

> ⓘ   CPQ applies Price Escalator on new ramp lines created during ABO operations
>   regardless of the **Default Asset Pricing Indicator?** setting (true or false). A new ramp
>   line always gets its value from the price list item (PLI) pricing. For more information,
>   see Use Case: Applying Price Escalator on New Ramp Lines During ABO Operations.

Renewing an Asset

Renewals are the most common and effective ways to retain existing customers and drive growth and sales for your business. Asset renewals eliminate the scope of pricing errors by extending the agreement. Therefore when you renew an asset, you basically regenerate the asset life-cycle for a new duration. CPQ supports the following types of renewals:

- Manual renewal of assets
- Auto renewal of assets

Renewing Assets Manually

CPQ allows you to renew an existing asset anytime you want, based on your business requirements.

To renew an asset

New Sale

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add products to the cart.
   If the administrator has configured the **Renewal Adjustment Type** and **Renewal Adjustment Amount** columns for the cart of the current flow, you will see those columns.
   a. In the **Renewal Adjustment Type** drop-down for a line item, select *% Uplift* by how much you want to uplift the asset price during renewal. In this case, enter the required percentage in the **Renewal Adjustment Amount** field of the line item.
   b. In the **Renewal Adjustment Type** drop-down for a line item, select *Uplift Amount* by how much you want to uplift the asset price during renewal. In this case, enter the required uplift amount in the **Renewal Adjustment Amount** field of the line item.

   > ⓘ CPQ considers these renewal adjustments only during asset renewal. These values do not impact the current transaction.

4. Finalize the cart.
5. After your customer accepts the quote, an order is generated.

6. After you activate the order, assets are generated. The assets are active and visible on the account.

Renewal

1. Create a quote to renew assets.
2. Navigate to the Installed Products page and select the assets that you want to renew.
3. Click **Renew**.

> ❗ If an asset is associated with a system-generated renewal quote and the **Alert Asset Related To Renewal Cart** setting is enabled, a warning is displayed about the existence of a renewal quote for this asset. The **Renewal Line Item** field on the asset indicates which renewal configuration is this asset currently associated with. Click **Proceed without delinking** to continue with manual renewal or **Cancel** to go to the Installed Products page for further action.

   If the asset is not associated with any system-generated renewal quote or if the **Alert Asset Related To Renewal Cart** setting is disabled, CPQ either reloads the Installed Products page or displays the Confirm Renewal pop-up or the Confirm Renewal intermediate page depending on how your administrator has configured the **Cotermination Preferences During Renewal** and **Default Renewal Cotermination Option** settings. For more information, see Configuring Custom Settings.

4. Perform one of the following actions:
   - If the Installed Products page is reloaded, click **Go to Pricing**. The cart page is displayed.
   - If the Confirm Renewal intermediate page is displayed, select one from the following options to define the renewal date and click **Confirm**. The cart page is

displayed.

- **Use the Proposal End Date:** To renew the asset until the date Quote/ Proposal ends. The Proposal End Date is displayed next to the option.

> ⓘ   If you perform asset renewal through the Asset Manager flow or CSR flow, the **Use the Proposal End Date** option is not displayed on the Confirm Renewal intermediate page.

- **Retain the current Asset End Date:** To renew the current asset on the date it expires.
- **Use the Farthest Asset End Date:** To choose the farthest end date of all assets for renewal.

> ⓘ   This option is visible only if the asset has more than one renewable charge types or if the selected asset has multiple renewable lines with different end dates.

- **Enter Renewal Date:** To select a custom renewal date.
- If the Confirm Renewal pop-up is displayed, select a date in the **Renewal Date** field and click **Confirm**. The cart page is displayed.

Confirm Renewal   X

Renewal Date   08/03/2020

Confirm   Cancel

5. On the cart, make changes to the asset if required.

> ⓘ If you deselect an option on the Configuration page and return to the Cart page, CPQ does not add the asset net price of the option to the rollup line of the bundle. CPQ displays that option as Cancelled on the cart with the asset start date and end date. For more information, see Use Case: Renew Bundle Assets without Adding Asset Net Price of Cancelled Options.
> If you deselect an option and reselect it on the Configuration page, CPQ restores the asset values for the fields added in the **Asset Restore Fields** setting, for the option line item on the Cart page. However, CPQ restores the renewal start date and end date (not the asset start and end dates) for the option line item on the Cart page. For more information, see Installed Products Settings and Use Case: Restoring Asset Values on Reselection of Cancelled Options During Renewal.

While finalizing the original Quote/Proposal, if you have specified the renewal adjustment (%Uplift or Uplift Amount), you will see the change in the Net Price. Click **Confirm**.

> ⓘ If the renewal is loaded with asset pricing and if the renewal adjustment was specified during the original sale, the base price on the renewal transaction reflects the adjustment. If there is not asset pricing, the base price is the new list price of the asset.

6. Click **Reprice** to apply and load the asset with the changes on the cart page.
7. Click **Finalize**.
8. After your customer accepts the quote, an order is generated.

9. After you activate the order, renewal assets are generated. On the Accounts page, you can verify that the status of the renewed asset changes from *New* to *Renewed*. You can trace the renewal activity and modifications from the **Order Line Items** and **Asset Transaction History** Related Lists.

> ⓘ **Line Status** for one-time products will remain *Existing*.

Check out how renewal works with Bundle and Standalone Assets.

Use Case: Different Renewal Dates

This section provides use cases for different renewal dates. When you are renewing an asset, CPQ provides the following renewal date options and the asset will be renewed until the date you select:

- Using Proposal End Date

- Retaining the Asset End Date

- Using the Farthest End Date

- Entering a Renewal Date

> ⓘ **Note**
>
> For renewal transactions, **Asset Start Date** will always be the current **Asset End Date + 1**. The **Asset End Date** is derived from the selected renewal options.

Let us take an example to understand how an asset is renewed based on your selection of the Renewal options.

For an Account 'TierOne', you have created a proposal 'W3Courses' which has a Start Date '01/01/2016' and End Date '12/31/2017'. The proposal contains the following Assets:

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Activated	01/01/2016	06/30/2016	6 months

Asset Name	Asset Status	Start Date	End Date	Selling Term
JAVA Learning	Activated	01/01/2016	12/31/2016	12 months
CSS Learning	Activated	01/01/2016	12/31/2017	24 months

Your subscriber wants to renew the subscription for the 'Programming with Python course' asset. Let us see how renewal works with each of the options:

Using Proposal End Date

This option fetches the Proposal End Date from an active proposal which the selected asset is a part of. The Proposal End Date in this example is '12/31/2017' and so the asset will be renewed till this date. Since Asset Start Date will be the current Asset End Date + 1, in this case the Asset Start Date becomes '07/01/2016'.

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Activated	07/01/2016	12/31/2017	17 months

The asset is renewed for 17 months from a revised date of start. The 'Action' field on Asset Transaction History is set to Renew.

Retaining the Asset End Date

The most common practice is to renew an asset immediately after it expires. This option renews an asset with the same term from its current End Date. For example, if the selling term for an asset is 24 months (2 years), the asset will be renewed for 2 further years after the asset expires.
In this scenario, the Asset is renewed for another 6 months (derived from the Selling Term) from its Start Date.

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Activated	07/01/2016	12/31/2016	6 months

Farthest End Date

> ⓘ The **Farthest End Date** option is visible only:
> - If the asset has more than one renewable charge type
> - If you select more than one asset with different end dates

An account can have multiple assets with varying start and end dates and selling terms. When you select the **Farthest End Date** option during renewal, CPQ identifies the asset with the farthest asset end date and sets that asset's renewal end date as the renewal end date for all other assets while adjusting the selling term. Calculation happens as follows:

- Renewal start date = Asset end date +1 (for all assets)
- Renewal end date = Farthest end date based on the renewal end date of the asset that has the farthest asset end date (common for all renewed assets)
- Selling term = Farthest renewal end date – Renewal start date

Let us assume that an account has three assets with the following details:

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Activated	01/01/2016	12/31/2016	12 months
JAVA Learning	Activated	01/01/2016	06/30/2016	6 months
CSS Learning	Activated	01/01/2016	10/31/2016	10 months

In the example above, the asset "Programming with Python course" has the farthest asset end date (12/31/2016). The selling term of this asset is 12 months.

While renewing these assets with the **Farthest End Date** option, CPQ populates the renewed assets with the following details:

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Renewed	01/01/2017	12/31/2017	12 months
JAVA Learning	Renewed	07/01/2016	12/31/2017	18 months
CSS Learning	Renewed	11/01/2016	12/31/2017	14 months

The renewal end date of the asset "Programming with Python course" is 12/31/2017. CPQ sets the renewal end date for all other assets as 12/31/2017. CPQ adjusts the selling term of the asset "JAVA Learning" as 18 months to accommodate the farthest renewal end date. CPQ adjusts the selling term of the asset "CSS Learning" as 14 months to accommodate the farthest renewal end date.

Renewal Date

Instead of pulling a renewal date from various sources, if you want to explicitly specify a Renewal End Date you can do so by selecting this option. If you enter '01/01/2018' as the renewal date, the Asset will be renewed as

Asset Name	Asset Status	Start Date	End Date	Selling Term
Programming with Python course	Activated	07/01/2016	01/01/2018	18 months

Please ensure the Renewal Date entered here is greater than the Asset End Date.

Use Case: Restoring Asset Values on Reselection of Cancelled Options During Renewal

This use case describes how CPQ restores asset values on reselection of cancelled options during renewal.

Prerequisites

- You have an active bundle asset.
- The administrator has added the following asset fields to the **Asset Restore Fields** setting:
    - Quantity
    - Start Date
    - End Date
    - Location
    - ABO Number (custom field)
    - ABO Picklist (custom field)
    - ABO Text (custom field)

Restoring Asset Values and Renewal Dates During Renewal

1. Navigate to the Installed Products page.
2. Select the bundle asset you want to renew. The bundle has the following details:

Product	Start Date	End Date	Quantity	Selling Term	Selling Frequency
Bundle1	01/01/2022	31/12/2022	1	1	Yearly
Option1	01/01/2022	31/12/2022	1	1	Yearly

3. Click **Renew**. The Confirm Renewal intermediate page is displayed.
4. Select **Retain the current Asset End Date** and click **Confirm**. The Installed Products page is displayed.
5. On the Mini-Cart, click **View Cart**. The cart page with the following details is displayed.

Product	Start Date	End Date	Quantity	Selling Term	Selling Frequency	Location	ABO Picklist	ABO Number	ABO Text
Bundle1	01/01/2023	31/12/2023	1	1	Yearly	IND	RED	2	Internal
Option1	01/01/2023	31/12/2023	1	1	Yearly	IND	RED	2	Internal

6. Make the following changes to the option on the cart:

Product	Start Date	End Date	Quantity	Selling Term	Selling Frequency	Location	ABO Picklist	ABO Number	ABO Text
Option1	01/01/2023	30/06/2023	3	1	Yearly	US	YELLOW	6	None

7. Click the wrench icon (🔧) next to the asset. The Configuration page is displayed.
8. Deselect Option1 and reselect it. You can reselect the option regardless of the pricing calculation: after the calculation process is complete or during the process.
9. Click **Go to Pricing**. The cart page with the following details is displayed:

Prod uct	Start Date	End Date	Qua ntity	Selling Term	Selling Frequen cy	Loca tion	ABO Picklist	ABO Numb er	ABO Text
Opti on1	01/01/2 023	31/12/2 023	1	1	Yearly	IND	RED	2	Intern al

CPQ restores the renewal start and end dates by default (not the asset start and end dates) and restores the rest of the fields from the asset.

Use Case: Renew Bundle Assets without Adding Asset Net Price of Cancelled Options

This use case describes how CPQ renews bundle assets without adding the asset net price of cancelled options.

Prerequisite

- You have an active bundle asset with an option.

Scenario 1: Renewing Bundle Assets without Adding Asset Net Price of Cancelled Options (Ramped Lines)

1. Navigate to the Installed Products page.
2. Select the bundle asset you want to renew.
3. Click **Renew**. The Confirm Renewal intermediate page is displayed.
4. Select **Retain the current Asset End Date** and click **Confirm**. The Installed Products page is displayed.
5. On the Mini-Cart, click **View Cart**. The cart page with the following details is displayed.

Product	Quanti ty	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Bundle 1	1	USD 300	USD 300	Renewed	USD 0	01/01/202 6	31/12/202 6

Product	Quantity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Standard Price	1	USD 300	USD 300	Renewed	USD 0	01/01/2027	31/12/2027
Standard Price	1	USD 300	USD 300	Renewed	USD 0	01/01/2028	31/12/2028
Option 1	1	USD 100	USD 100	Renewed	USD 0	01/01/2026	31/12/2026
Standard Price	1	USD 100	USD 100	Renewed	USD 0	01/01/2027	31/12/2027
Standard Price	1	USD 100	USD 100	Renewed	USD 0	01/01/2028	31/12/2028

6. Click the wrench icon (🔧) next to the bundle asset. The Configuration page is displayed.
7. Deselect Option 1 and click **Go to Pricing**. The cart page with the following details is displayed:

Product	Quantity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Bundle 1	1	USD 200	USD 300	Renewed	(USD 100)	01/01/2026	31/12/2026
Standard Price	1	USD 200	USD 300	Renewed	(USD 100)	01/01/2027	31/12/2027
Standard Price	1	USD 200	USD 300	Renewed	(USD 100)	01/01/2028	31/12/2028
Option 1	1	USD 000	USD 100	Cancelled		01/01/2023	31/12/2023
Standard Price	1	USD 000	USD 100	Cancelled		01/01/2024	31/12/2024

Product	Quantity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Standard Price	1	USD 000	USD 100	Cancelled		01/01/2025	31/12/2025

> ⓘ
> - CPQ does not add the asset net price of the option to the rollup line of the bundle. CPQ deducts the asset net price (USD 100) of the cancelled option (Option 1) from the bundle rollup line (Bundle 1) during renewal because this option is no longer required.
> - CPQ displays that option as Cancelled on the cart with the asset start date and end date.
> - CPQ retains the bundle lines as Renewed with the renewed dates.
> - The grand total on the cart is USD 600.

Scenario 2: Renewing Bundle Assets without Adding Asset Net Price of Cancelled Options (Non-Ramped Lines)

1. Navigate to the Installed Products page.
2. Select the bundle asset you want to renew.
3. Click **Renew**. The Confirm Renewal intermediate page is displayed.
4. Select **Retain the current Asset End Date** and click **Confirm**. The Installed Products page is displayed.
5. On the Mini-Cart, click **View Cart**. The cart page with the following details is displayed.

Product	Quantity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Bundle 1	1	USD 300	USD 300	Renewed	USD 0	01/01/2024	31/12/2024
License Fee		USD 200	USD 200	Renewed	USD 0	01/01/2024	31/12/2024
Option License Fee1	1	USD 100	USD 100	Renewed		01/01/2024	31/12/2024

Product	Quant ity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Option Standard Fee	1	USD 100	USD 100	Renewed		01/01/202 4	31/12/202 4
Option License Fee2	1	USD 100	USD 100	Renewed		01/01/202 4	31/12/202 4

6. Click the wrench icon (🔧) next to the bundle asset. The Configuration page is displayed.

7. Deselect Option License Fee1 and click **Go to Pricing**. The cart page with the following details is displayed.

Product	Quant ity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Bundle 1	1	USD 300	USD 300	Renewed	USD 0	01/01/202 4	31/12/202 4
License Fee		USD 100	USD 200	Renewed	(USD 100)	01/01/202 4	31/12/202 4
Option License Fee1	1	(USD 0)	USD 100	Cancelle d		01/01/202 3	31/12/202 3
Option Standard Fee	1	USD 100	USD 100	Renewed		01/01/202 4	31/12/202 4
Option License Fee2	1	USD 100	USD 100	Renewed		01/01/202 4	31/12/202 4

> ⓘ • CPQ does not add the asset net price of the option to the rollup line of the bundle.
> • CPQ displays that option as Cancelled on the cart with the asset start date and end date.
> • CPQ retains the bundle line (License Fee) as Renewed with the renewed dates because it still has at least one option (Option License Fee2) rolling up the price.

8. Click the wrench icon (🔧) next to the bundle asset. The Configuration page is displayed.

9. Deselect Option License Fee2 and click **Go to Pricing**. The cart page with the following details is displayed.

Product	Quantity	Net Price	Base Price	Line Status	Option Price	Start Date	End Date
Bundle 1	1	USD 300	USD 300	Renewed	USD 0	01/01/2024	31/12/2024
License Fee		USD 0	USD 200	Cancelled	(USD 200)	01/01/2023	31/12/2023
Option License Fee1	1	(USD 0)	USD 100	Cancelled		01/01/2023	31/12/2023
Option Standard Fee	1	USD 100	USD 100	Renewed		01/01/2024	31/12/2024
Option License Fee2	1	(USD 0)	USD 100	Cancelled		01/01/2023	31/12/2023

> ⓘ
> - CPQ does not add the asset net price of the option to the rollup line of the bundle.
> - CPQ displays that option as Cancelled on the cart with the asset start date and end date.
> - License Fee is a **pure rollup** line. When you cancel all options rolling up the price (Option License Fee1 and Option License Fee2), CPQ displays the bundle line (License Fee) as Cancelled on the cart with asset start date and end date because all options tagged to it are also cancelled.
> - In further ABO operations, the bundle (Bundle 1) will show only the standard fee (asset net price of Option Standard Fee).

Use Case: Applying Price Escalator on New Ramp Lines During ABO Operations

This use case describes how CPQ applies Price Escalator on new ramp lines during renewal of assets.

Prerequisite

- Your administrator has configured price escalator on the PLI of both bundle and option products. For example:

Escalator Id	Adjustment Type	Adjustment Amount	Period Number	Adjustment Applies To	Adjustment Source
PE-00000001	% Discount	10	1	Base Price	First Ramp
PE-00000002	% Discount	20	2	Base Price	First Ramp
PE-00000003	% Discount	30	3	Base Price	First Ramp
PE-00000004	% Discount	40	4	Base Price	First Ramp

New Sale

In this use case:

- Base price of Bundle1 = USD 1000.00
- Base price of Option1 = USD 100.00

You purchase the following products with three ramp lines during a new sale.

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Bundle1	USD 990.00	USD 900.00	USD 90.00	01/01/2023	01/31/2023	New

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Standard Price	USD 792.00	USD 720.00	USD 72.00	02/1/2023	02/28/2023	New
Standard Price	USD 693.00	USD 630.00	USD 63.00	03/01/2025	03/31/2025	New
Option1	USD 90.00	USD 90.00		01/01/2023	01/31/2023	New
Standard Price	USD 72.00	USD 72.00		02/1/2023	02/28/2023	New
Standard Price	USD 63.00	USD 63.00		03/01/2025	03/31/2025	New

Assets are created for Bundle1 and Option1 with three ramp line items.

Adding a New Ramp Line During Renewal

1. Navigate to the Installed Products page.
2. Select the bundle asset you want to renew.
3. Click **Renew**. The Confirm Renewal intermediate page is displayed.
4. Select **Retain the current Asset End Date** and click **Confirm**. The Installed Products page is displayed.
5. On the Mini-Cart, click **View Cart**. The cart page with the following details is displayed.

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Bundle1	USD 990.00	USD 990.00	USD 0.00	04/01/2023	04/30/2023	Renewed
Standard Price	USD 792.00	USD 792.00	USD 0.00	05/01/2024	05/31/2024	Renewed
Standard Price	USD 693.00	USD 693.00	USD 0.00	06/01/2025	06/30/2025	Renewed

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Option1	USD 90.00	USD 90.00		04/01/2023	04/30/2023	Renewed
Standard Price	USD 72.00	USD 72.00		05/01/2024	05/31/2024	Renewed
Standard Price	USD 63.00	USD 63.00		06/01/2025	06/30/2025	Renewed

6. Hover the mouse on the bundle product and click the ⋮ icon, and then click **Price Ramp**. The price ramp pop-up is displayed.

7. From the **Please select a Ramp** drop-down, select the latest ramp, and then click the ➕ icon next to the bundle. The fourth ramp line is added to the cart.

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Bundle1	USD 990.00	USD 990.00	USD 0.00	04/01/2023	04/30/2023	Renewed
Standard Price	USD 792.00	USD 792.00	USD 0.00	05/01/2024	05/31/2024	Renewed
Standard Price	USD 693.00	USD 693.00	USD 0.00	06/01/2025	06/30/2025	Renewed
Standard Price	USD 648.00	USD 594.00	USD 54.00	07/01/2023	07/31/2023	New
Option1	USD 90.00	USD 90.00		04/01/2023	04/30/2023	Renewed
Standard Price	USD 72.00	USD 72.00		05/01/2024	05/31/2024	Renewed
Standard Price	USD 63.00	USD 63.00		06/01/2025	06/30/2025	Renewed

Product	Net Price	Base Price	Option Price	Start Date	End Date	Line Status
Standard Price	USD 54.00	USD 54.00		07/01/2023	07/31/2023	New

> ⓘ
> - The fourth ramp line has the line status as New. The new ramp line always gets its value from the price list item (PLI) pricing.
> - CPQ applies Price Escalator on new ramp lines created during ABO operations regardless of the **Default Asset Pricing Indicator?** setting (true or false) in **Config System Properties**.
> - CPQ applies 40% discount on the base price of the first ramp line of both bundle and option.
> - CPQ rolls up the option price of the new ramp line to the new bundle rollup line.

Renewing Assets Automatically

CPQ allows you to auto-generate renewal quotes based on the fulfillment of order or the expiration of subscription. Through renewal quotes, you can forecast and analyze the sales pipeline. With renewal quotes, you get the finer visibility into the pricing and configuration of assets within the renewal pipeline. The benefits of auto renewals are:

- Accurate forecasting on the asset state and sales pipeline
- Faster and simpler processing with automated renewal
- Automatic closure of opportunity on asset expiry

Types of Asset Renewal Modes

There are two types of renewal modes, defined in **Renewal Execution Mode**:

- Auto
- OnDemand

> ⓘ It is recommended not to use these renewal modes interchangeably.

The following diagram explains how auto renewals work:
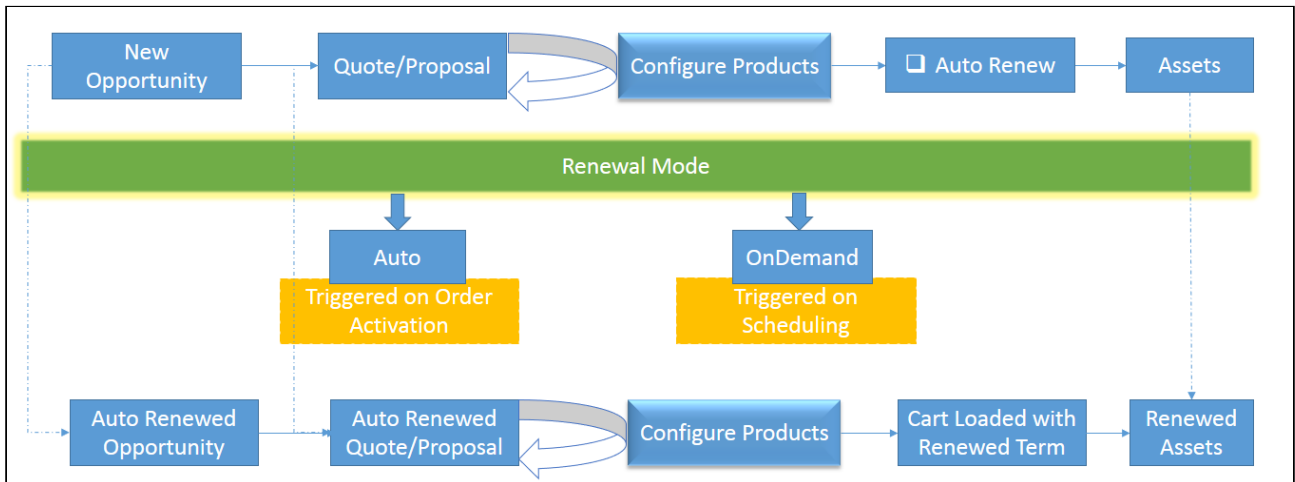
Renewing Assets in Auto Renewal Mode

When **Renewal Execution Mode** is set to *Auto*, CPQ automatically renews an existing quote for all assets it has, as soon as the order is activated. You may want to renew an existing opportunity in Auto renewal mode when:

- You require renewal quotes for forecasting.
- You must work on renewal quotes in advance.

The following diagram describes the flow of **Auto** renewals.

Prerequisites

- The **Renewal Business Object Type** is set to Proposal.
- The **Renewal Execution Mode** is set to *Auto*.
- The **Renewal Group Fields** are defined.
- The AssetRenewalJobScheduler batch job is scheduled.

How Auto Renewal Mode Works

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add products to the cart and finalize it.
4. After your customer accepts the quote, an order is generated.
5. After you activate the order, assets are generated. The assets are active and visible on the account.
6. CPQ creates auto renewal quotes immediately after you activate the order.

By default, CPQ groups asset line items into renewal quotes by the **Auto Renew** flag and other **Renewal Group Fields** defined. There will be two renewed quotes: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

> ⓘ Renewal quote that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal quote and renews the asset for the next term. The quote will be automatically set to Accepted without any intervention (this is called Touchless Renewal).
> Renewal quote that has assets with Auto Renew = False: You need to manually process the quote.

On the Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the AssetRenewalJobScheduler job is executed, the status of asset groups changes to Completed and the renewal quote is created. The name of the renewal quote will be Renew:<original_quote_id>-<name_of_price_list>-<quote_end_date>.

When the renewal quote is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal quote. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal quote for this asset.
CPQ updates the currency of the opportunity line items created on auto-renewal quote's opportunity with the same currency as of the Auto renewal quote.

The renewal quote inherits the **Bill To** and **Ship To** account values from the original quote (parent quote). In the following example, different accounts are configured in the original quote:

Quote Header Field	Value
Account (Sold To)	ABC Corp
Bill To	ABC Bill Corp
Ship To	ABC North Corp

The renewal quote inherits these account values from the original quote only when **Renewal Execution Mode** is set to *Auto*.

7. When you configure products in this renewal quote, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ On the new renewal quote, the **Start Date** = **Parent Quote's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the quote is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal quote.

8. Add products to the cart if required and finalize it.
9. After your customer accepts the quote, an order is generated.

Use Case: Grouping of Assets without Renewal Group Fields During Renewal

In this example, CPQ renews a quote which has both auto-renew and non-auto renew lines. In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Configuration

Field	
Renewal Execution Mode	Auto
Renewal Lead Time	-
Renewal Group Fields	-

Quotes Created

All non-auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE

All auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Use Case: Grouping of Assets with Renewal Group Fields During Renewal

You can use any field on the Asset Line Item in **Renewal Group Fields** when creating a renewal quote. This section explains how CPQ groups renewal assets with use cases.

Grouping a Renewal Quote by Product

In this example, the original quote has both auto-renew and non-auto renew lines. In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Configuration

To group the renewal assets by the Product, enter the *API name* of the **Product Name** field in **Renewal Group Fields**.

Field	
Renewal Execution Mode	Auto

Field	
Renewal Lead Time	-
Renewal Group Fields	Apttus_Config2__ProductId__r.Name

Renewal Quotes Created

Quote 1

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE

Quote 2

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Grouping Renewal Quotes by Product and Auto Renew Flag

This is the quote that will undergo renewal. In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Configuration

To group the Renewal Quotes by the Product and Auto Renew Status, enter the *API name* of these fields in **Renewal Group Fields**.

Field	
Renewal Execution Mode	Auto
Renewal Lead Time	-
Renewal Group Fields	Apttus_Config2__ProductId__r.Name, Apttus_Config2__AutoRenew

Quotes Created

Quote 1 Product A: Auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE

Quote 2 Product B: Auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Quote 3 Product A: Non-auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE

Quote 4 Product B: Non-auto renew

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE

Renewing Assets in OnDemand Renewal Mode

When **Renewal Execution Mode** is set to *OnDemand*, CPQ automatically renews assets based on the defined **Renewal Lead Time**. CPQ supports Account mode and Product mode for OnDemand renewal of assets. However, these modes are mutually exclusive, which means you must use only one mode in one org. You may want to renew an existing asset in OnDemand renewal mode:

- During one-time legacy asset data migrations
- During one-time renewal quote creation for existing active asset base
- When minimal changes are required on the renewal quotes because of any ABO changes.

Account Mode

This mode works based on the global **Renewal Lead Time** setting in Installed Product Settings. CPQ automatically renews all assets on the account (possibly from different quotes) based on the defined global **Renewal Lead Time** after you click a **custom button** on the account.

The following diagram describes the flow of **OnDemand** renewals. In this diagram, **Renewal Lead Time** is 120 days.
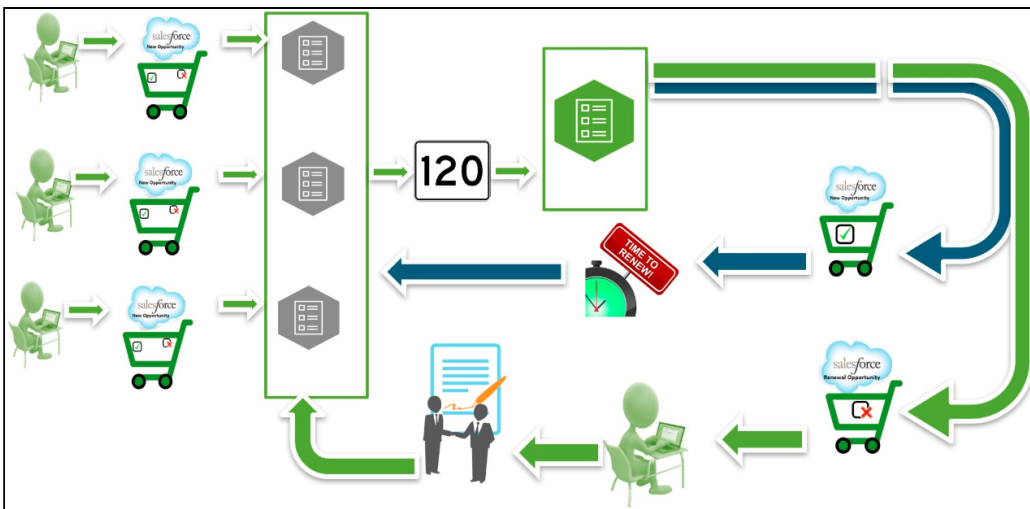
Over a period of time, you sell some products/services through different quotes, which might have varying end dates. After the original quotes are converted into orders and the order are activated, assets are generated. All assets are visible on the account. When you want to renew the assets that will expire in 120 days from today, you click the **custom button** on the account. CPQ compares the asset line items' end dates with the **Renewal Lead Time** defined and triggers the creation of renewal quotes for all those assets (from different quotes) that will expire in 120 days.

Prerequisites

- The **Renewal Business Object Type** is set to Proposal.
- The **Renewal Execution Mode** is set to OnDemand.
- A custom button is created on the account or a custom link is created on the quote.

  > ⓘ If the custom button is on the account, you can renew all assets in the account based on the defined Renewal Lead Time. If the custom link on the quote, you can renew assets from a quote based on the defined Renewal Lead Time.

- The **Renewal Lead Time** is defined.
- The **Renewal Group Fields** are defined.

- The *AssetRenewalJobScheduler* batch job is scheduled.

How OnDemand Renewal Mode Works

1. From an account, create an opportunity.
2. Create quotes from the opportunity and configure products.
3. Add products to the cart and finalize it.
4. After your customer accepts the quotes, orders are generated.
5. After you activate the orders, assets are generated. The assets are active and visible on the account.
6. Click the **custom button** on the account when you want to trigger the creation of renewal quotes.
7. CPQ creates renewal quotes based on the defined **Renewal Lead Time**, considering the expiry date of assets (from different quotes).

By default, CPQ groups asset line items by Account and the Price List. However, if other parameters are configured in **Renewal Group Fields**, CPQ groups asset line items accordingly. If some assets had **Auto Renew** flag set to True or False, there will be two renewed quotes: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

> ⓘ Renewal quote that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal quote and renews the asset for the next term. The quote will be automatically set to Accepted without any intervention (this is called Touchless Renewal).
> Renewal quote that has assets with Auto Renew = False: You need to manually process the quote.

After CPQ triggers renewal quote creation, on the Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the *AssetRenewalJobScheduler* job is executed, the status of asset groups changes to Completed and the renewal quote is created. The name of the renewal quote will be Renew:<name_of_price_list>-<quote_end_date>.

When the renewal quote is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal quote. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal quote for this asset.

CPQ updates the currency of the opportunity line items created on auto-renewal quote's opportunity with the same currency as of the On Demand renewal quote.

When you execute the *CreateRenewAssetsGroupJob*, CPQ creates the required TempRenewAssetGroups on active asset line items. After the *AssetRenewalJobScheduler* job is executed, CPQ processes those TempRenewAssetGroups, changes the status of asset groups to Completed, and creates the renewal quotes and configurations. After you perform some changes on the assets, if you execute *CreateRenewAssetsGroupJob* again, CPQ does not create any new TempRenewAssetGroups.

8. When you configure products in this renewal quote, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ   On the new renewal quote, the **Start Date** = **Parent Quote's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the quote is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal quote.
9. Add products to the cart if required and finalize it.
10. After your customer accepts the quote, an order is generated.

Product Mode

This mode works based on the product-level **Renewal Lead Time**. CPQ automatically renews all assets (possibly from different quotes across all accounts in the org) based on the defined product-level **Renewal Lead Time** after you execute a code in Developer Console.

Prerequisites

- The **Renewal Business Object Type** is set to Proposal.
- The **Renewal Execution Mode** is set to OnDemand.
- The **Renewal Lead Time** is defined for the required products. See Creating Products. For example, there are two products with the Renewal Lead Time of 20 and 40 days.
- The **Renewal Group Fields** are defined.
- The *AssetRenewalJobScheduler* batch job is scheduled.

How OnDemand Renewal Mode Works

1. Create quotes and configure products with Renewal Lead Time.
2. Add products to the cart and finalize it.
3. After your customer accepts the quotes, orders are generated.
4. After you activate the orders, assets are generated.
5. Run the following code in Developer Console:

   > ⚠️ In the following code, (20,5,100,30} is used as an example Renewal Lead Time. CPQ allows you to use multiple lead times separated by a comma.

   ```
   List<Integer> productLeadTimes = new List<Integer>

   {20,5,100,30}
   ;

   Apttus_Config2.AssetRenewalSubmitController controller = new
    Apttus_Config2.AssetRenewalSubmitController(productLeadTimes);

   // do submit
   ID jobId = controller.doSubmitJob();
   ```

6. CPQ creates renewal quotes based on the defined **Renewal Lead Time**, considering the expiry date of assets (from different quotes across all accounts in the org). For example, if there are two products with the Renewal Lead Time of 20 and 40 days, only the product with Renewal Lead Time=20 is triggered and its OnDemand renewal quote is created.

   By default, CPQ groups asset line items by Account and the Price List. However, if other parameters are configured in **Renewal Group Fields**, CPQ groups asset line items accordingly. If some assets had **Auto Renew** flag set to True or False, there will be two renewed quotes: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

   > ⓘ Renewal quote that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal quote and renews the asset for the next term. The quote will be automatically set to Accepted without any intervention (this is called Touchless Renewal).
   > Renewal quote that has assets with Auto Renew = False: You need to manually process the quote.

After CPQ triggers renewal quote creation, on the respective Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the *AssetRenewalJobScheduler* job is executed, the status of asset groups changes to Completed and the renewal quote is created. The name of the renewal quote will be Renew:<name_of_price_list>-<quote_end_date>.

When the renewal quote is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal quote. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal quote for this asset.

When you execute the *CreateRenewAssetsGroupJob*, CPQ creates the required TempRenewAssetGroups on active asset line items. After the *AssetRenewalJobScheduler* job is executed, CPQ processes those TempRenewAssetGroups, changes the status of asset groups to Completed, and creates the renewal quotes and configurations. After you perform some changes on the assets, if you execute *CreateRenewAssetsGroupJob* again, CPQ does not create any new TempRenewAssetGroups.

7. When you configure products in this renewal quote, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ On the new renewal quote, the **Start Date** = **Parent Quote's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the quote is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal quote.

8. Add products to the cart if required and finalize it.
9. After your customer accepts the quote, an order is generated.

Use Case: Renewals without Grouping

In this example, CPQ renews a quote which has both auto-renew and non-auto renew lines. In this example, Quantity = 1 and Auto Renewal Term = 24.

Product	Charge Type	Base Price	Term	Start Date	End Date	Net Price	Renewal Adjmt Amount	Renewal Adjmt Type	Auto Renew
Product A	One-time	10000	12	4/1/2015	3/31/2016	10000	10	percent	TRUE
Product A	Recurring	100	12	1/1/2015	12/31/2015	10000		percent	FALSE
Product B	One-time	5000	12	5/1/2015	4/30/2016	10000	10	percent	FALSE
Product B	Recurring	200	12	1/1/2015	12/31/2015	10000		percent	TRUE
Product C	One-time			7/1/2015	6/30/2016	10000			TRUE
Product C	Recurring			7/1/2015	6/30/2016	4	10	percent	TRUE

Configuration

Field	Value
Renewal Execution Mode	OnDemand
Renewal Lead Time	120
Renewal Group Fields	-

Quotes Created

Non-auto renew (all assets expiring within 120 days from 1st Dec 2016)

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	Recurring	100	1/1/2015	12/31/2015		FALSE
Product B	One-time	5000	5/1/2015	4/30/2016	10	FALSE

Auto Renew (note that Product C is not in the list)

In this example, Term = 12, Quantity = 1, Net Price = 10000, Auto Renewal Term = 24, and Renewal Adjustment Type = percent.

Product	Charge Type	Base Price	Start Date	End Date	Renewal Adjustment Amount	Auto Renew
Product A	One-time	10000	4/1/2015	3/31/2016	10	TRUE
Product B	Recurring	200	1/1/2015	12/31/2015		TRUE

Use Case: Renewing Bundle Assets

This section describes the renewal process for a bundle asset. The Asset 'ABO Budle1_AS' with 3 different charge types has 2 Options- Option1 and Option2. On the cart, Option1 is selected with 6 months and 3 months of validity for corresponding charge types.

> ⓘ If you deselect required options on the Configuration page, CPQ displays an error message and selects the options back after the pricing calculation is complete.

The cart is finalized and an order is generated. You can see the Asset Line Items on the Quote/Proposal or from the Account.

Let us see how this Asset is renewed based on the Renewal Option of **Retaining the Asset End Date**.

Deriving Start and End Dates

For renewal transactions, **Asset Start Date** will always be the **Current Asset End Date + 1**.

In this renewal option, **Asset End Date** will be the date derived from adding the **Selling Term** to the new **Asset Start Date**.

Before Renewal

Asset	Start Date	End Date
ABO Bundle1_AS	07/26/2016	07/25/2017
Option1	07/26/2016	01/25/2017
Option1 (Different Charge Type)	07/26/2016	10/25/2016

The **Asset Status** on the Installed Products page is **Activated**.

After Renewal

Asset	Start Date	End Date
ABO Bundle1_AS	07/26/2017	07/25/2018
Option1	01/26/2017	07/25/2017
Option1 (Different Charge Type)	10/26/2016	01/25/2017

The **Asset Status** on the Installed Products page is *Pending Renewal*. When you confirm and go to the Cart page, the **Status** changes to *Renewed*.

Use Case: Renewing Standalone Assets

This section describes the renewal process for a standalone asset. The Asset 'ABO Standalone1_AS' has 4 different charge types.

The cart is finalized and an order is generated. You can see the Asset Line Items on the Quote/Proposal or from the Account.

Let us see how this Asset is renewed based on the Renewal Option of **Retaining the Asset End Date**.

Deriving Start and End Dates

For renewal transactions, **Asset Start Date** will always be current **Asset End Date** + 1. In this renewal option, **Asset End Date** will be the date derived from adding the Selling Term again.

Before Renewal

Asset	Start Date	End Date
ABO Standalone1_AS	07/26/2016	07/25/2017

After Renewal

Asset	Start Date	End Date
ABO Standalone1_AS	07/26/2017	07/25/2018

The **Asset Status** on the Installed Products page is **Pending Renewal**. When you confirm and go to the Cart page, the Status changes to **Renewed**.

Use Case: Renewing Merged Assets with the Same Purchase Identifier

When the user merges two assets with the same purchase identifier, the merged line is associated with the same renewal quote that contained the original lines. For more information on merging assets, see Merging Assets.

Sale 1

Asset	Purchase ID	Renewal Quote
Asset 1	A123	RQ1

Sale 2

Asset 2 is also associated with the same renewal quote because the purchase identifier is same.

Asset	Purchase ID	Renewal Quote
Asset 2	A123	RQ1

Merge Assets

When Asset 1 and Asset 2 are merged, CPQ creates merged Asset 3. Because the merged asset also has the same purchase identifier, it will be created in the same renewal quote that had original assets.

Asset	Purchase ID	Renewal Quote
Asset 3	A123	RQ1

The cancelled lines will be removed from the original quote.

Use Case: Renewed Ramped Assets Start from the End Date of the Last Ramp Line

CPQ begins the renewal start date of a ramped bundle asset (multi-year deal) based on the end date of the last ramp line (in the current term). CPQ calculates the renewal start date of the second ramp line based on the end date of the first ramp line; CPQ calculates the renewal start date of the subsequent ramp lines based on the end date of the previous ramp lines. While calculating the renewal start date of ramped asset line items, CPQ aligns the selling term of all renewal ramp lines with the selling term of ramp lines from the new sale.

> ⚠ **Note**
>
> - CPQ supports both manual and auto renewal of assets.
> - You must use only the **Retain with current Asset End Date** option on the Confirm Renewal pop-up. This use case does not work with other renewal end date options.
> - The **Renew One Ramp** setting must be *False*.

Use Case 1

In this use case, you renew a bundle after changing the end date of the last ramp line.

New Sale: You sell a bundle to a customer during new sale.

Ramp	Start Date	End Date	Selling Term
1	1/1/2021	12/31/2021	1
2	1/1/2022	12/31/2022	1
3	1/1/2023	12/31/2023	1

Change Asset: You change the end date of the last ramp line from 12/31/2023 to 6/30/2023.

Ramp	Start Date	End Date	Selling Term
1	1/1/2021	12/31/2021	1
2	1/1/2022	12/31/2022	1
3	1/1/2023	6/30/2023	0.5

Renew Asset: After you renew the bundle asset, the renewal start date is based on the end date of the last ramp line. Though you change the end date of the last ramp line (resulting in different selling term from the previous two ramp lines), CPQ still honours the changed date and starts the renewal of the asset from the end date of the last ramp line.

Ramp	Start Date	End Date	Selling Term
1	7/1/2023	6/30/2024	1
2	7/1/2024	6/30/2025	1
3	7/1/2025	12/31/2025	0.5

Use Case 2

In this use case, you renew a bundle after changing the end date of multiple ramp lines.

New Sale: You sell a bundle to a customer during new sale.

Ramp	Start Date	End Date	Selling Term
1	1/1/2021	12/31/2021	1
2	1/1/2022	12/31/2022	1
3	1/1/2023	12/31/2023	1

Change Asset: You change the end date of multiple ramp lines.

Ramp	Start Date	End Date	Selling Term
1	1/1/2021	12/31/2022	2
2	1/1/2023	12/31/2023	1
3	1/1/2024	6/30/2024	0.5

Renew Asset: After you renew the bundle asset, the renewal start date is based on the end date of the last ramp line. While calculating the renewal start date of a ramped asset line item, CPQ aligns the selling term of all renewal ramp lines with the selling term of ramp lines from the new sale. CPQ calculates the renewal start date of the second and third ramp lines based on the end date of the first and second ramp lines respectively. Though you change the end date of multiple ramp lines (resulting in different selling terms), CPQ still honours the changed dates and starts the renewal of the asset from the end date of the last ramp line.

Ramp	Start Date	End Date	Selling Term
1	7/1/2024	6/30/2026	2
2	7/1/2026	6/30/2027	1

Ramp	Start Date	End Date	Selling Term
3	7/1/2027	12/31/2027	0.5

Renewing Assets Using Current Contract Value

> ⓘ The Contract Term feature is supported only through Proposal.

As a sales representative for a company that sells subscriptions, you may have to uplift and discount the subscription multiple times during its life cycle. Because of such change operations, the net price of the subscription changes, but the contract price remains the renewed value so there is a difference in the asset net unit price and contract net unit price. Due to such operations, sometimes you get higher asset net unit price and lower contract price, or lower asset net unit price and higher contract price. You can renew the subscription for the total contract value or its annual contract value depending on the business case. CPQ loads the asset line with base price as defined by the **Base Price Defaulting Method For Renewal** setting. For more information, see Configuring Custom Settings.

You can provide discount on the subscription for a value greater than the current net price of the subscription (post a renewal and upgrade operation). CPQ can calculate the discount from the start date of the current contract term (not the original start date of the asset), if the **Apply Adj To Current Contract Term** setting is enabled. If **Apply Adj To Current Contract Term** is False, after deep discount, both asset and contract term will start from the original start date. If **Apply Adj To Current Contract Term** is False and if the customer has a deep discounting use case (discount an amount > net price but < asset TCV), the recommended best practice is to not expose the contract fields (Current Contract Start Date, Current Contract Term, Current Contract Value, Current Contract Unit Price) on the termination UI. These fields will reset to the original term after a deep discount and the values will be repetitive. **Apply Adj To Current Contract Term** is a global flag. The value of this flag must be either TRUE or FALSE throughout the cycle of asset. You should not switch this flag during asset operations.

> ⓘ CPQ does not apply delta price adjustment on a subscription if the bundle price becomes the price from PLI after you change an attribute.
> Delta price adjustment must be applied only on bundle line.
> Delta price adjustment is not applied to a one-time bundle line (new or existing) even though the **Enable One Time Change** is set to True.

Use Case: Early Renewal of Ramped Bundle Assets with Options

You can perform an early renewal of a bundle asset that has options and multiple ramps, by changing the bundle start date to a date earlier than current asset end date.

Key Points to Note:

- CPQ supports both manual and auto renewal of assets.
- The **Auto Cascade Selling Term** setting must be *True* on the price list item of the options.
- The **Enable Auto Ramp Creation** setting must be *True* on the price list item of the bundle and options.

New Sale

In this use case, you purchase 1 bundle and 1 option with three ramp lines during the new sale.

Product Type	Start Date	End Date	Selling Term	Line Status
Bundle	01/01/2021	12/31/2021	1	New
Bundle	01/01/2022	12/31/2022	1	New
Bundle	01/01/2023	12/31/2023	1	New
Option	01/01/2021	12/31/2021	1	New
Option	01/01/2022	12/31/2022	1	New
Option	01/01/2023	12/31/2023	1	New

Assets are created for the ramped bundle and option.

During Renewal

During renewal, you see the assets with the following details.

Asset Type	Start Date	End Date	Selling Term	Line Status
Bundle	01/01/2024	12/31/2024	1	Renewed
Bundle	01/01/2025	12/31/2025	1	Renewed
Bundle	01/01/2026	12/31/2026	1	Renewed
Option	01/01/2024	12/31/2024	1	Renewed
Option	01/01/2025	12/31/2025	1	Renewed
Option	01/01/2026	12/31/2026	1	Renewed

Renewal with a Modified Start Date

After 18 months, you want to renew this ramped bundle with its option for next 3 years under a good deal. You want to renew the service earlier then current asset end date (12/31/2023). You renew the assets by changing the start date of the first renewal bundle asset to 6/30/2022.

Asset Type	Start Date	End Date	Selling Term	Line Status
Bundle	06/30/2022	12/31/2024	2.5	Renewed
Bundle	01/01/2025	12/31/2025	1	Renewed
Bundle	01/01/2026	12/31/2026	1	Renewed
Option	06/30/2022	12/31/2024	2.5	Renewed
Option	01/01/2025	12/31/2025	1	Renewed
Option	01/01/2026	12/31/2026	1	Renewed

Key Points to Note:

- When you change the start date of the primary ramp line on the bundle, CPQ changes the start date of the primary option line to the same date as the bundle.
- CPQ recalculates the selling term of the primary ramp line on the bundle and option based on the changed date.

- CPQ recalculates the pricing correctly, based on the changed date.
- CPQ retains the line status of bundle and option lines as *Renewed*.

Changing an Asset

With the Change function, you can increase or decrease the quantity of assets according to your customer's requests. Change operation also allows you to change the Start Date, End Date, Selling Term, Billing Rule and other fields on the cart for both, Standalone and Bundle assets. You can update the value of several fields on your cart under a single Change action, for a given Asset.

Of the various parameters you can change, the following are the most commonly updated fields:

- **Change Quantity:** If you update the quantity of an asset, this update will be reflected as an amendment in the current Asset Line Item. A new line item will not be created for this change.
  You should specify an absolute value for the **Quantity** field regardless of an increment or decrement in the actual quantity. For example, if you want to increase the asset quantity from 100 to 120, you should enter 120 and not 20. Therefore you must enter the total quantity you want as a result of the change action.

- **Change Start Date:** Updating Start Dates indicates the date from which the change is effective. If you update both the Quantity and the Start Date, the updated quantity will come into effect from the given start date.

  For example, an Asset with 100 Licenses has a **Start Date** of 01 January 2016 and **End Date** of 31 December 2016. As part of the **Change** action, Start Date is set to 01 March 2016 and Quantity is increased by 30. This means, from 01 January to 29 February customer has 100 Licences and starting from 01 March till the End Date, the number of Licenses is 130.
  Please note that prior to the new date, the asset will remain in its previous state and will be billed accordingly. The older information will *not* be deleted or overwritten.

- **Change End Date**: You can update the End Date to extend or shorten the asset validity. On updating the Asset End Date, the existing Line item is amended.

ⓘ **Note**

> For any **Change** action on the asset, **Net Price** indicates the price of the Asset as seen from the **Start Date** to the **End Date** on the cart.

Let us take a look at the procedure to change an asset.

To change an asset

To change the Quantity and Selling Term for a standalone asset.

1. On the **Installed Products** page, select the asset you want to update and click **Change**. On the cart page, **Line Status** changes to *Amended*.
2. You can change one or more of the following parameters:

Parameter	Description
Attribute Value	To change the Attribute value, click the wrench icon (🔧) next to the asset. You will see the **Product Attributes** page. Select the new attribute value and click **Go to Pricing** to load the cart page.
Option	Expand the Show Options tree and select from the listing of the options to display all Product Options. From the resulting list, select the option with which you want to replace the original product option.
Quantity	Enter the number of units of the product your customer wants to purchase.
Adjustment Type	If you want to adjust the price of the asset, select an adjustment type.
Price	Enter a value that is the amount your customer is charged for the product without accounting for taxes and other charges.
Start Date	The date you want to start billing your customer for this purchase.
End Date	The date you want to stop billing your customer for this purchase.

Parameter	Description
Billing Frequency	Select one of the following options **Monthly** - To generate a bill once every month **Quarterly** - To generate a bill once every three months **Half-yearly**- To generate a bill once in the middle of a calendar or financial year **Yearly** - To generate a bill once every year **Usage** - To generate a bill based on usage For more information, see Change Billing Frequency.
Billing Rule	Select one of the following options **Bill in Advance** - To bill your customer before the product is delivered **Bill in Arrears** - To bill your customer after the product is delivered **Bill on Ready for Billing Date** - To bill your customer with a consolidate invoice, on a day of their choice.
Billing Preference	Select a predefined billing preference. For details, see Billing Preferences.
Payment Term	Lookup and select a predefined Payment Term so your customers know that they must pay outstanding charges within a stipulated time. For more information, see Payment Term.

3. Click **Reprice** to view the changed price and **Finalize** to go back to the Quote.
4. The status of the changed asset changes from *New* to *Amended*.

You can rename the **Change** button as per your business requirement. The functionality remains the same and only the label is renamed. For more information, see Configuring Display Action Settings.

Impact of Changing the Asset on Order Line Items and Asset Transaction History

The status of the asset changes to *Amended* on the Order Line Item and a new entry for the **Change** action is added as to the Asset Transaction History as *Amend*.

Order Line Items		New Order Line Item					Order Line Items Help
Action	Line Item Id	Line Status	Status	Start Date	End Date	Ready for Activation Date	
Edit | Del	OI-0000000131	Amended	Activated	7/26/2016	1/25/2017	8/1/2016 11:49 PM	
Edit | Del	OI-0000000121	New	Activated	7/26/2016	7/25/2017	7/26/2016 7:05 AM	

Asset Transaction History (From)		New Asset Transaction History				Asset Transaction History (From) Help
Action	Txn Id	Transaction Date	Action	Effective Start Date	Order	
Edit | Del	ATH-00000131	8/1/2016	Amend	7/26/2016	O-00000024	
Edit | Del	ATH-00000121	7/26/2016	New	7/26/2016	O-00000022	

To check the status of your assets, the Status Category of the proposal must be **Accepted**. To view the assets, select the account of the proposal and navigate to Asset Line Items (Sold To) related list.

Every change you make to an asset impacts its Billing Schedule. If the asset is usage-based, then it impacts the associated Usage Schedule as well.

> ⓘ **Note**
>
> Even though you can extend your asset's validity using **Change**, it is recommended that you perform **Renewal** action for explicit renewal purposes.

> ⓘ **Renewing Ramp Lines after Change Operation**
> The Asset Grid retains renew ramp line upon Change or Renew operation after you enable Renew One Ramp and Renew of Option.
> When you click **Change** for an asset on the **Installed Products** page, CPQ shows one renewed option line. However, you must enable `Renew One Ramp` in the Installed Product settings along with Price Ramps for the bundle.

Changing Configurable Bundle Assets

You can change the parameters of a bundle asset, much like you do with a standalone. On the Installed Products page,

1. Select the Bundle asset that you want to change and click **Change**. The cart page is displayed.
2. To view the options, click the **Show Options** list below the product name.
3. To change the options, click the wrench icon (🔧) next to the asset.
4. From the list of displayed options, select the checkbox for options you want to include and deselect the checkbox for options you want to remove.

> ⓘ If you deselect an option and reselect it on the Configuration page, CPQ restores the asset values for the fields added in the **Asset Restore Fields** setting, for the option line item on the Cart page. For more information, see Installed Products Settings and Use Case: Restoring Asset Values on Reselection of Cancelled Options During Change.
> If you deselect required options on the Configuration page, CPQ displays an error message and selects the options back after the pricing calculation is complete.

5. Click **Go to Pricing** to load the cart.

> ⓘ For *Change: Configuration,* terminating an asset from the original start date results in incorrect **Net Price** for the changed and upgraded asset line items.

6. Enter values manually for the fields described in the Changing an Asset page.
7. Click **Reprice** and then **Finalize**.

You have successfully created a new order with different product options.

Changing the Attributes of an Asset

Similar to a Line Item (For more information, see About Assets and Asset Line Items) in the Quote to Cash flow, that starts as a Cart Line Item, progresses to the Proposal, Agreement, Order, and finally the Asset Line Item, the Attribute values that you define for each Product, are copied to the Proposal Product Attribute values object, Order Product Attribute values object, and the Asset Product Attribute values object. You can view the Product Attribute values that the Asset Line Item inherits from the cart, on the Asset line item detail page.

You can customize the product configuration on your cart based on the Product Attribute values that you define. For more information, see Managing Attribute-Based Configuration.

To change the Attribute values for an asset

1. On the Installed Products page, select an asset and click **Change**. The cart page is displayed.
2. Click the wrench icon (🔧) next to the asset.
3. On the Product Attributes section, select the attributes that you want to change and enter their values.
4. Click **Go to Pricing**.

> ⓘ **Note**
>
> Only those Attributes for which you select the **Is Primary** check box on the Attribute Configuration page, are shown in the Product Attributes section of the Installed Products page. These attributes are called Critical Attributes.
> CPQ displays the critical or primary attributes associated with the main bundle product on the Installed Products page. However, CPQ does not display the critical or primary attributes associated with sub-bundles on the Installed Products page.

Use Case: Cancelling Options in a Bundle Asset with Ramp Lines

This section describes how CPQ behaves when you cancel an option in a bundle asset that has ramp lines.

Case A

New Sale

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add a bundle product with an option (Option-1) to the cart. Make sure that the bundle does not have any ramp lines.
4. Finalize the cart.
5. After your customer accepts the quote, an order is generated.
6. After you activate the order, a bundle asset is generated. The asset is active and visible on the account.

Change Asset

1. Create a quote to change the asset.
2. Navigate to the Installed Products page and select the bundle assets that you want to change.
3. Click **Change**. The cart page is displayed.
4. Cancel the existing Option-1 and add the new Option-2.
5. Add three ramps to the bundle asset.

> ⓘ CPQ does not cascade ramp lines from the bundle to the cancelled Option-1.

6. Click **Go to Pricing** to load the cart.
7. Click **Reprice** to apply and load the asset with the changes on the cart page.
8. Click **Finalize**.
9. After your customer accepts the quote, an order is generated.
10. After you activate the order, change assets are generated.

Case B

New Sale

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add a bundle product with an option (Option-1) to the cart. Make sure that the bundle does not have any ramp lines.
4. Finalize the cart.
5. After your customer accepts the quote, an order is generated.
6. After you activate the order, a bundle asset is generated. The asset is active and visible on the account.

Change Asset

1. Create a quote to change the asset.
2. Navigate to the Installed Products page and select the bundle assets that you want to change.
3. Click **Change**. The cart page is displayed.
4. Add the new Option-2.
5. Add three ramps to the bundle asset. On the Cart both Option-1 and Option-2 have three ramp lines. For Option-1, there is one ramp in Existing status and two ramps in New status.
6. Click the wrench icon (🔧) next to the bundle asset and cancel the existing Option-1.

> ⓘ The first line is in Cancelled status and the other two lines are removed. CPQ adjusts the amount on the bundle properly.

7. Click **Go to Pricing** to load the cart.
8. Click **Reprice** to apply and load the asset with the changes on the cart page.
9. Click **Finalize**.
10. After your customer accepts the quote, an order is generated.
11. After you activate the order, change assets are generated.

Use Case: Cancelled Asset Options Fetch Original Asset Start and End Dates During Renewal

While renewing a bundle asset with options, if you cancel an option and go to the cart, the cancelled option line items fetch the original asset start date and end date. Further, these dates are cascaded to the proposal line items, order line items, and asset line items.

New Sale

In this use case, you purchase 1 bundle and 1 option with three ramp lines during the new sale.

Product Type	Start Date	End Date	Selling Term	Line Status
Bundle	01/01/2021	12/31/2021	1	New
Bundle	01/01/2022	12/31/2022	1	New
Bundle	01/01/2023	12/31/2023	1	New
Option	01/01/2021	12/31/2021	1	New
Option	01/01/2022	12/31/2022	1	New
Option	01/01/2023	12/31/2023	1	New

Assets are created for the ramped bundle and option.

During Renewal

During renewal, you see the assets with the following details.

Asset Type	Start Date	End Date	Selling Term	Line Status
Bundle	01/01/2024	12/31/2024	1	Renewed
Bundle	01/01/2025	12/31/2025	1	Renewed
Bundle	01/01/2026	12/31/2026	1	Renewed

Asset Type	Start Date	End Date	Selling Term	Line Status
Option	01/01/2024	12/31/2024	1	Renewed
Option	01/01/2025	12/31/2025	1	Renewed
Option	01/01/2026	12/31/2026	1	Renewed

Renewal with the Option Removed

You remove the option and go to the cart.

Asset Type	Start Date	End Date	Selling Term	Line Status
Bundle	01/01/2024	12/31/2024	1	Renewed
Bundle	01/01/2025	12/31/2025	1	Renewed
Bundle	01/01/2026	12/31/2026	1	Renewed
Option	01/01/2021	12/31/2021	1	Cancelled
Option	01/01/2022	12/31/2022	1	Cancelled
Option	01/01/2023	12/31/2023	1	Cancelled

Key Points to Note

- The line status for cancelled option is Cancelled.
- The cancelled option line item fetch the original asset start date and end date, not the renewed asset start date and date.
- The Contract_numbers (cancellation date) have the original asset end date for that ramp line when the asset is cancelled.

Use Case: Restoring Asset Values on Reselection of Cancelled Options During Change

This use case describes how CPQ restores asset values on reselection of cancelled options during change.

Prerequisites

- You have an active bundle asset.
- The administrator has added the following asset fields to the **Asset Restore Fields** setting:
  - Quantity
  - Start Date
  - End Date
  - Location
  - ABO Number (custom field)
  - ABO Picklst (custom field)
  - ABO Text (custom field)

Restoring Asset Values During Change

1. Navigate to the Installed Products page.
2. Select the bundle asset you want to change. The bundle has the following details:

Product	Start Date	End Date	Quantity	Selling Term	Selling Frequency
Bundle1	01/01/2022	31/12/2022	1	1	Yearly
Option1	01/01/2022	31/12/2022	1	1	Yearly

3. Click **Change**. The cart page with the following details is displayed.

Product	Start Date	End Date	Quantity	Selling Term	Selling Frequency	Location	ABO Picklist	ABO Number	ABO Text
Bundle1	01/01/2022	31/12/2022	1	1	Yearly	IND	RED	2	Internal
Option1	01/01/2022	31/12/2022	1	1	Yearly	IND	RED	2	Internal

4. Make the following changes to the option on the cart:

Pro duc t	Start Date	End Date	Qua ntit y	Sellin g Term	Selling Frequency	Loc atio n	ABO Picklist	ABO Number	ABO Text
Opti on1	01/01/ 2022	31/10/ 2022	3	1	Yearly	US	YELLOW	6	None

5. Click the wrench icon (🔧) next to the asset. The Configuration page is displayed.
6. Clear Option1 and reselect it. You can reselect the option regardless of the pricing calculation: after the calculation process is complete or during the process.
7. Click **Go to Pricing**. The cart page with the following details is displayed:

Prod uct	Start Date	End Date	Qua ntity	Selling Term	Selling Frequen cy	Loca tion	ABO Picklist	ABO Numb er	ABO Text
Opti on1	01/01/2 022	31/12/2 022	1	1	Yearly	IND	RED	2	Intern al

CPQ restores asset values for the fields added in the **Asset Restore Fields** setting, for the option line item on the Cart page.

Managing Asset Increment with Coterminate Lines

As a Sales Representative, you can increase the quantity of an asset and manage these incremental licenses independently as a separate asset or you can chose to update the existing asset to reflect the new state after adding the incremental licenses. You can sell the incremental quantity at the same price point as the original sale or at a different price point. During the sale of these incremental licenses, you can coterminate them with the existing licenses.

1. Click Installed Products. The Installed Product page is displayed.
2. Select the check box for a product and click **Change** > **Quantity**. The Change Quantity page for the selected asset is displayed.
3. In the **Change quantity by** field, increase the quantity by clicking the + icon. The **New Quantity** field displays the updated quantity immediately.
4. From the **Cotermination** drop-down list, select a cotermination option for incremental licenses.

ⓘ During the sale of incremental licenses, you can decide whether you want to coterminate them with the existing licenses. At the time of renewal, the incremental licenses can be renewed independently. You can selectively coterminate all or some of the incremental streams, or you can selectively merge all or some of the incremental streams into one stream. The **End Date** field is editable only if you select the **Enter Custom Date** option. The options available depend on the settings defined by your Administrator. For more information, see Configuring Installed Products Settings.

- **Retain the current Asset End Date**: Select this option to retain the current asset end date for cotermination.
- **Enter Custom Date**: Select this option to enter a custom date for cotermination. The **End Date** field is editable if you select this option.
- **Use the Proposal End Date**: Select this option for cotermination to use the proposal end date.

  ⓘ If you perform asset increment through the Asset Manager flow, the **Use the Proposal End Date** option is not displayed on the Change Quantity intermediate page.

5. Modify the **Start Date** and **End Date** fields if you selected Enter Custom Date from the **Cotermination** drop-down list.
6. Select the **Update Existing Assets** checkbox to enable these quantity changes to reflect in the existing asset.

  ⓘ If you selected **Enter Custom Date** in the **Cotermination** drop-down and modified the **End Date**, you cannot select the **Update Existing Assets** checkbox.

- If you select this checkbox, on order activation, the incremental quantity updates into the existing asset. Line status is changed to Incremented and Merged. You can verify the quantity increment at Account > Asset Line Items list. The quantity increment is displayed under the Delta Quantity column.
  - When the price point, identifier and end date are the same, the existing quote line corresponding to the asset in the existing renewal quote is updated with the updated asset detail.
  - When the price point is a weighted average, and the identifier and end date are the same, the existing quote line corresponding to the asset in the existing renewal quote is updated with the updated asset detail.
- If you do not select this checkbox, on order activation, a new asset with the same name of the existing asset is created. Line status is changed to

Incremented. You can verify the quantity increment at Account > Asset Line Items list. There are two assets with the same name, one with the original quantity and the other with the increment quantity. However, the Total Quantity column indicates the cumulative quantity, that is, original quantity plus increment quantity.

> ⓘ In CPQ on Salesforce Winter 2018 release, CPQ does not support the calculation of total quantity and asset quantity, and renewal automation on the lines with the Incremented status.

- When the price point of the incremental asset is not the same as the existing asset (and you are not using the weighted average), but the identifier and the end date are the same, a new line is created in the existing renewal quote.
- When the price point of the incremental asset is not the same as the existing asset (and you are not using the weighted average) and the end date is the same but the identifier is different, a new renewal quote is created.
- When the end date of the incremental asset is not the same as the existing asset, a renewal quote is created.

7. To coterminate other asset streams with the current increment, in the Cotermination with Increment panel, select any or all assets.

> ⓘ The Cotermination with Increment panel is visible only if your administrator has not enabled the Hide Co-Term setting.
> If your administrator has configured Purchase Identification Criteria, you can see other assets that match the purchase identifier of the current increment, in the Cotermination with Increment section.
> You can coterminate a few other assets that are related to the current asset. The related assets are the assets that are available under Related Purchases on the Installed Product page. However, you can only coterminate related assets with the same end date, but cannot increment the quantity of the related assets.
> If you selected **Enter Custom Date** in the **Cotermination** drop-down and modified the **End Date**, the new date is updated in the New End Date field of the selected related assets, under the Cotermination with Increment section. For more information, see Configuring Installed Products Settings.

8. Click **Go to Pricing**. The Cart page is displayed.

9. Click the ⓘ icon on the Asset Line Column to understand the projected asset details. An API is called and the Project Asset Value window is displayed. You can see the current asset unit price, current asset net price, updated asset unit price, and updated asset net price.

Managing Asset Decrement

You can decrease the quantity of an asset during the current term when the original quantity is no longer required. You can sell the decrement quantity at the same price point as the original sale or at a different price point. During the sale of these decrement licenses, CPQ merges the decrement quantity with existing assets.

1. Click **Installed Products**. The Installed Product page is displayed.
2. Select the check box for an asset for which you want to decrease the quantity.
3. Click **Change** > **Quantity**. The Change Quantity page for the selected asset is displayed.
4. In the **Change quantity by** field, decrease the quantity by clicking the – icon. The **New Quantity** field displays the updated quantity immediately.

> ⓘ You cannot reduce the quantity to less than or equal to the existing asset quantity.
> For example, the asset quantity=4
> - You can reduce it to –3 (this is acceptable because the new quantity is 1).
> - You cannot reduce it to –4 (this is not acceptable because the remaining quantity cannot be 0).

5. From the **Cotermination** drop-down list, the **Retain the current Asset End Date** option is selected by default, which allows you to retain the current asset end date. Select a different **Start Date** if required.

> ⓘ The **Enter Custom Date** and **Use the Proposal End Date** options are disabled.

6. The **Update Existing Assets** checkbox is enabled by default and you cannot edit it. It indicates that these quantity changes will reflect in the existing asset.
7. Click **Go to Pricing**. The Cart page is displayed with the following details:
   - Quantity = Negative quantity provided by you on the Change Quantity page
   - Line Status = Decremented and Merged
   - Net Price = Amount for the quantity decremented

On order activation, the decrement quantity updates into the existing asset. You can verify the quantity decrement at Account > Asset Line Items list. You will see the following details on the asset line item for which you decreased quantity:

- Asset Status = Activated
- Net Price = Amount for the remaining amount after quantity decrement
- Quantity = Remaining quantity after decrement
- Asset TCV = Reflects the right value after decrement
- Billing Schedule = Conga Billing supersedes the old billing schedule and creates a new billing schedule with the remaining quantity. For more information, see Billing Schedules for Decremented and Merged Assets.

For more information, see Use Case: Asset Quantity Decrement.

Use Case: Asset Quantity Decrement

In this use case, you will decrease the quantity of the asset during the current term.

1. Click **Installed Products**. The Installed Product page is displayed.
2. Select the check box for an asset for which you want to decrease the quantity. The asset has the following details:

Quantity	Net Price	Start Date	End Date	Selling Term	Selling Frequency
4	USD 400.00	1/1/2022	31/12/2022	1	Yearly

3. Click **Change** > **Quantity**. The Change Quantity page for the selected asset is displayed.
4. In the **Change quantity by** field, decrease the quantity from 4 to 3 by clicking the – icon. The **New Quantity** field displays the updated quantity as 3.
5. From the **Cotermination** drop-down list, the **Retain the current Asset End Date** option is selected by default, which allows you to retain the current asset end date for cotermination.
6. The **Update Existing Assets** checkbox is enabled by default and you cannot edit it. It indicates that these quantity changes will reflect in the existing asset.
7. Click **Go to Pricing**. The Cart page displays the following details for the decrement quantity:

Quant ity	Net Price	Line Status	Start Date	End Date	Delta Quantity	Total Quantity	Asset Quantity
-1	(USD 100.00)	Decrement ed and Merged	1/1/2022	31/12/20 22	-1	3	4

On order activation, the decrement quantity updates into the existing asset. You can verify the quantity decrement at Account > Asset Line Items list. You will see the following details on the asset line item for which you decreased quantity:

Asset Status	Net Price	Quantit y	Total Quantity	Asset Quantity	Delta Quantity	Asset TCV
Activated	USD 300.00	3	3	3	-1	USD 300.00

Splitting Assets

As a Sales rep, you can divide an existing asset into multiple split lines to negotiate an upsell quote with customers. You can split standalone assets and bundle assets that have option line items. You can split a bundled asset into multiple components each with its own quantity, start date, and end date. On each split line of the asset, you can perform various asset-based actions such as, split, split and swap, and split and renew.

Prerequisites

A Product Replacement Constraint Rule must be configured by your administrator for the Swap asset action.

To split an asset

1. Click Installed Products. The Installed Product page is displayed.
2. Select the check box for a product and click **Change** > **Split**. The Define Split <asset name> page is displayed. The original asset line item is in Existing status with the existing asset quantity, start date, and end date. One more split line is added with zero quantity, with the same asset start date and end date.
3. Select one of the following split asset actions.

> ⚠ The split asset actions depend on what your administrator has configured. For more information, see Configuring Installed Products Settings.

- **Split and Renew**: Click the more icon ⋮ and select **Renew** to split the asset into two split lines and renew the second split line.

- **Split and Swap**: Click the more icon ⋮ and select **Swap** to split the asset into two split lines and to exchange a split line of the existing asset with a predefined alternate asset. When you select **Swap**, the Swap Asset page is displayed. Click **Split** to return to the Define Split <asset name> page. You can now see the swapped asset for the Split and Swap split line. For more information, see Swapping an Asset.

- Click the add icon ⊕ to add more split lines.

- Click the delete icon 🗑 to remove an split line.

4. Enter the following details:

> ⓘ For a bundle asset, you can edit the data either at the bundle line level or at the option item levels. When you edit the data at the option item level, the corresponding line status changes to Amend. The unedited options remain in the Existing status.
>
> You must edit the parameters on each line within the bundle construct.

Field	Description
Quantity	Enter the desired quantity for the split lines. You can also change the quantity of the original asset. When you change the quantity of the original asset, the status of the asset changes to Amend. ⚠ Until you enter the quantity for the split lines, the **Go to Pricing** button is disabled. Option quantity is not cascaded to options for all split actions. You must populate the option quantity manually. Until then, the **Go to Pricing** button is disabled.

Field	Description
Start Date	All split lines fetch the original asset start date by default. Modify the split line start date if required. For Split-Renew and Split-Swap actions, the split line will have the modified start date on the cart page. ⓘ If you do not enter a date on the option lines for a split component, the **Go to Pricing** button is not enabled.
End Date	All split lines fetch the original asset end date by default. Modify the split line end date if required. For Split-Renew and Split-Swap actions, the split line will have the modified end date on the cart page. ⓘ If you do not enter a date on the option lines for a split component, the **Go to Pricing** button is not enabled.

5. Click **Go to Pricing**. The cart page is displayed where you can also change the quantity, start date, and end date.
   - Existing asset: Unless you made any changes, the existing asset remains unchanged (with zero Delta Quantity). The original line item and split line (both standalone and bundle asset) are in Amended status. Unless you made any changes, the option product is in Existing status. If you made any changes on an option line item (for example, change in end date), the changes are rolled up to the bundle line item and status of both bundle and option is Amended.
   - Split: The split line is in Split status. Unless you made any changes, the split line retains the start date and end date of the original asset. The quantity of the split line is the total quantity that includes original quantity and new quantity.
   - Split and Renew: The split line is in Split and Renewed status. The start date and end date are renewed dates. The quantity of the renewed split line is the total quantity that includes original quantity and new quantity.
   - Split and Swap: The split line is in Upgraded status. The start date and end date are modified dates. Both split-swap bundle line item and option line item display the updated quantity.

   ⚠ The Asset Line Item column on the cart indicates that the new asset line items have references to the original asset line item.

> When the effective date of swap is before the end date of the original line, the swap line is coterminated with the original line. When the effective date of swap is after the end date of the original line, the swap line added for the whole term.
>
> For a bundle product, you can have different start date and end date combination.
>
> To avoid constraint rules from being triggered on Split and Renewed or any other line status on the Cart, the administrator must have defined constraint rule criteria. For information on configuring constraint rules, see Creating Constraint Rules.

6. Click **Reprice**. You can now finalize your cart.
7. Navigate to the account. After the quote is accepted and the order is activated, the account displays all split lines as new asset line items.
8. Click an asset line item link. The Asset Line Item page is displayed.
9. Click **Related Asset Line Items (From)** or **Related Asset Line Items (To)** link. The New Related Asset Line Item window displays the relation between the original asset line item and the new split asset line item.
10. Click **Related Transaction History (From)** or **Related Transaction History (To)** link. The New Asset Transaction History window displays the complete history of a specified asset line item.

Merging Assets

As a Sales Representative, you can merge multiple assets created over a period of time as a result of actions such as new sale, quantity increment, split. You can consolidate individual streams of assets into a single asset, which can also help you avoid duplicates. You can track the origin of the newly-consolidated asset using the relationships created between the original assets and the merged asset.

> ⓘ The Merge feature is supported only for standalone products with a single charge type.

Prerequisites

- There must be more than one asset line item.

- The asset line items that you want to merge must have the same product, charge type, selling frequency, price type, and any other customized field. For more information, see Configuring Installed Products Settings.

To merge assets

1. Click Installed Products. The Installed Product page is displayed.
2. Select the checkboxes for the required assets and click **Change** > **Merge**. If the assets lines have the common mandatory fields, the Merge popup is displayed.

   ⓘ If the merge criteria are not fulfilled, an error message is displayed. For example, if the assets have different end dates, you cannot merge them. You must select at least two assets to see the **Merge** option under **Change**.

3. From the **Effective Date** calendar, select a start date for the new merged asset.

   ⓘ The farthest start date is populated in the **Effective Date** field by default. The effective date must be greater than or equal to the farthest start date of the assets; otherwise, the **Merge** button is disabled. If you enter a date that is less than the farthest start date, an error message is displayed on the Merge popup.

4. Click **Merge**. The selected assets are merged into a new asset. The line status of the new asset is Merged with the start date you provided in the **Effective Date** field.

   ⓘ The cart also loads the selected assets, but they are in Cancelled status. Their end date is one day before the start date of the merged asset. You cannot edit the end date of cancelled asset line items.
   The Merged asset does not retain the attributes from Cancelled assets. When the user merges two assets with the same purchase identifier, the merged line is associated with the same renewal quote that contained the original lines. For more information, see Use Case: Renewing Merged Assets with the Same Purchase Identifier.

   The merge line with a different date creates a renewal quote.
   - If both cancelled assets have the same purchase identifier as the one on the quote for merge, the renewal line for the new merged asset is created in the same renewal quote as the one that has the lines for the purchase identifier.
   - If both cancelled assets have different purchase identifiers, a renewal quote is created for the merged asset.

> Merge lines are created on a new renewal quote and cancelled lines removed from the existing renewal quote.

5. On the Cart grid, hover the mouse on the Merged or Cancelled assets, click the more icon (⋮), and select **Related Line Items**. The related line items popup is displayed.

> ⓘ The **Add/Remove**, **Save**, and **Split** buttons are visible for relationship types other than Merger.

You can see related line items of the cancelled assets and their weighted net price.

> ⓘ The term on all related asset line items that are associated with the merged line is equal. The quantity on the merged line is the sum of all quantities on the related asset line items. The base price of the merged line is weighted average of the related lines. You can apply adjustments on the merged line, but the applied adjustment has no impact on the related asset line items.

Swapping an Asset

The Swap feature allows you to exchange an existing asset with a predefined alternate asset. You can also upgrade one asset with the next version of the asset. You can swap a standalone, bundle, and an option product. Swapping of a product depends on the Product Replacement Constraint Rule that is set by your administrator. As a sales rep, you can cancel an existing asset and replace it with an equivalent new sale either through a swap action or by adding the cancelled and new lines manually.

From the example discussed earlier, your subscriber wants to upgrade from the Beginner level of the Business Intelligence course to the Advanced level.

To swap an asset

> ⓘ The fields displayed during swap depend on how your administrator has configured the **Asset Termination Fields** setting. For more information, see Configuring Installed Products Settings.

1. On the **Installed Products** page, select the product that you want to swap.
2. Select the product from **Available Products** section.
3. Click **Purchase**. The Confirm Installed Products Swap page or the Confirm Swap pop-up is displayed.

4. From the **Effective End Date** lookup, select the date from when you want the swap to be effective, and click **Calculate**.

   The current asset will end on the effective end date you selected and swapped asset will start from the next day. If the **Start Date** of the swapped asset is a future date, a validation message is displayed to enter a valid **Start Date**. For example, an asset A with **Start Date** = 1 Jan, 2017 and **End Date** = 31 Jan, 2017 is swapped with a product B on June 5, 2016. Instead of taking June 6, 2016, as **Start Date** for product B, the system shows a validation message that the **End Date** of product B should be after the **Start Date** of product A.

5. View the Description and the Difference in the Original and the New Product.

6. To proceed with the Swap, click **Confirm**. Click **Back to Selection** to go back to the last page.

> ⓘ **Note**
>
> If you select multiple assets on the Installed Products page, the Swap button will be disabled.

7. Click **Finalize** to go back to the quote.

Field	Description
From	The product that you want to swap for is displayed here.
To	The new product that you want to swap to is displayed here.

The status of the renewed asset changes from *New* to *Upgraded*. To check the status of your assets, the Status Category of the proposal must be **Accepted**. To view the assets, select the account of the proposal and navigate to Asset Line Items (Sold To) related list.

You can swap an asset on the same day of its expiry. A new Line Item is created for the swapped product with the same term as the previous asset. CPQ calculates the selling term using the calendar by default. CPQ derives the total value of the asset on the cancelled line. CPQ calculates the net price (that is, the new TCV for the asset) by considering the term calculation logic (prorates each history line based on the term start date identified).

> ⓘ CPQ can also calculate the selling term based on the billing preferences. When the Conga Billing package is installed, you must set the **Selling Term Calculation Method** setting to Billing Preference. In that case, CPQ calculates the selling term based on the billing preferences. For more information, Billing Preferences.

Mass Update for Assets

From the **Allow Mass Change** setting on the **Installed Products Settings** under **Custom Settings** page, you can enable or disable mass changes for *must configure* assets on the Installed Products page.

Action	Allow Mass Change	Type of Asset	Selection	Behavior
Swap	Unchecked	not Must Configure	Single Select	Enable swap and land on an intermediate page
Swap	Unchecked	Must Configure	Single Select	Enable swap and land on an intermediate page
Swap	Checked	not Must Configure	Single Select	Enable swap and land on an intermediate page
Swap	Checked	Must Configure	Single Select	Enable swap and land on an intermediate page
Swap	Checked	Must Configure	Multi Select	Disable Swap
Swap	Checked	not Must Configure	Multi Select	Disable Swap
Swap	Unchecked	Must Configure	Multi Select	Disable Swap
Swap	Unchecked	not Must Configure	Multi Select	Disable Swap

Terminating an Asset

Using the Terminate feature, you can cancel a standalone, fixed bundle, or a configurable bundle asset. You can terminate an asset midway through the selling term. When an asset is canceled, CPQ captures the Termination Date of an asset on the Line Item object in the **Contract Number** field in *CCYY-MM-DD* format, which is used by the order and asset to store the Cancellation Date. The appropriate order line items are created and assets are also updated immediately after termination.

The billing impact is shown during termination only if you have the Conga Billing package installed in your org. For more information, see Use Case: Terminating Assets When Billing Management is Installed. If the Conga Billing package is not installed, CPQ calculates the different values based on the calendar dates.

Prerequisites

- The fields displayed during termination depend on how your administrator has configured the **Asset Termination Fields** setting. For more information, see Configuring Installed Products Settings
- CPQ enables you to edit selected fields on a cancelled line, based on the configured **Editable Fields For Cancelled Lines**. You can edit the end date on the cancelled line and reprice the cart to calculate the net price. You can also edit a custom currency field to pass credit amounts to downstream applications through the proposal or order. Apart from the fields you selected, the remaining fields are read-only fields. You cannot edit sensitive managed package fields such as list price related currency fields. Refer to "Configuring Installed Product Settings" in CPQ on Salesforce Spring 2020 Administrator Guide.
    - The values you edit at the bundle level cascade to the associated option lines.
    - The end date of a cancelled bundled header line overrides any change to the end date at the option level.
    - If a particular field is read-only at the bundle level, the field is read-only at the option line level also in the Cart.
- When the Conga Billing package is not installed, it is recommended to display the Confirm Termination pop-up instead of the Confirm Termination page. In **Display Column Settings** for the **Display Type** *Asset Termination*, only the **Termination Date** field must be added. For more information, see Configuring Display Column Settings.

To terminate an asset

New Sale

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add products to the cart and finalize it.
4. After your customer accepts the quote, an order is generated.
5. After you activate the order, assets are generated. The assets are active and visible on the account.

Termination

1. Create a quote to terminate assets.
2. Navigate to the Installed Products page.
3. Select the assets that you want to cancel and click **Terminate**. The Confirm Termination pop-up is displayed.

4. Enter the **Termination Date** and click **Confirm**.
   The termination date can be in the past, the current date, or any date in the future. You can use custom logic to validate the date entered for the cancellation. If the validation fails, an error message is displayed.
   The status of the cancelled asset line items shows *Pending Cancellation* on the Installed Products page.
5. If your administrator has configured **Editable Fields for Cancelled Lines** and **Display Columns Settings**, CPQ displays the custom asset line item fields on the Confirm

Termination page after you click **Terminate**.

> ⓘ CPQ carries these custom asset line item field values from the Confirm Termination page to the Cart page where you can make further changes to those field values, if required.

6. Go to the Cart and review the following fields and their values.
   - Net Price
   - Line Status
   - Selling Term
   - End Date

#	Group By Product ▾	Line Status	Collaboration	Base Price	Option Price	Billing Frequency	Billing Preference	Quantity	Guidance	Service Location		Selling Term
1	Bundle-4778 🔧											
	⊞											
	Standard Price �📶 $	Cancelled	👥	USD 100		Monthly ✕ ▾		1.000		--None-- ▾	Q	1.06
	License Fee $	Cancelled		USD 20		Monthly ✕ ▾		1.000		--None-- ▾	Q	1.03
	▼Show Options											
	Option2-4778											
	Standard Price $	Cancelled		USD 20		Monthly		1.000			Q	1.06

> ⓘ If you edited any of the custom asset line item fields on the Confirm Termination page, CPQ carries these edited field values from the Confirm Termination page to the Cart page where you can make further changes, if required.

7. Click **Finalize**.

   After you accept the quote and activate the order for the terminated assets, you can view the impact on the following fields on the Account page:

   - For an Asset Line Item, **Asset Status** changes to *Cancelled*.
   - For an Order Line Item, **Line Status** changes to *Cancelled*.

After the assets that are cancelled, CPQ selects the **Inactive** flag for the asset line items with *Cancelled* status so that these asset line items do not show on the Cart for the successive ABO actions.

Apart from the **Terminate** action, following are the scenarios when the status of the asset line item changes to *Cancelled*:

- While using **Change** action, if you deselect an Option product (inside a Bundle product) and finalize the Cart containing this Bundle Product, the status of the asset line item for Bundle product will show as *Amended* and that for the Option product will show as *Cancelled*.
- While using **Swap** action, if you replace a product with another product, the status of the asset line item for the former will show as *Cancelled*.

To check the status of your assets, the **Approval Stage** of the Quote/Proposal must be *Accepted*. To view the assets, select the account of the proposal and navigate to Asset Line Items (Sold To) related list.

A new entry is also made in the Asset Transaction History related list. For more information, see Asset Transaction History.

Use Case: Terminating Assets When Billing Management is Installed

If you have the Conga Billing package installed in your org, the billing impact is shown while terminating an asset. During billing, CPQ determines the refund value from the Cancellation Date captured in the asset and refunds to the customer accordingly. For more information, see Billing Concepts.

If Conga Billing is not installed, the system calculates the different values based on the calendar dates. For more information, see Terminating an Asset.

Prerequisites

- The fields displayed during termination depend on how your administrator has configured the **Asset Termination Fields** setting. For more information, see Configuring Installed Products Settings.
- CPQ enables you to edit selected fields on a cancelled line, based on the configured **Editable Fields For Cancelled Lines**. You can edit the end date on the cancelled line and reprice the cart to calculate the net price. You can also edit a custom currency field to pass credit amounts to downstream applications through the proposal or order. Apart from the fields you selected, the remaining fields are read-only fields. You cannot edit sensitive managed package fields such as list price related currency fields. For more information, see Configuring Installed Products Settings.
  - The values you edit at the bundle level cascade to the associated option lines.
  - The end date of a cancelled bundled header line overrides any change to the end date at the option level.
  - If a particular field is read-only at the bundle level, the field is read-only at the option line level also in the Cart.
- When the Conga Billing package is installed, it is recommended to display the Confirm Termination page instead of the Confirm Termination pop-up. In **Display Column Settings** for the **Display Type** *Asset Termination*, select all billing fields required. For more information, see Configuring Display Column Settings.

To terminate an asset

New Sale

1. From an account, create an opportunity.
2. Create a quote from the opportunity and configure products.
3. Add products to the cart and finalize it.
4. After your customer accepts the quote, an order is generated.
5. After you activate the order, assets are generated. The assets are active and visible on the account.

Termination

1. Create a quote to terminate assets.
2. Navigate to the Installed Products page.
3. Select the assets that you want to cancel and click **Terminate**. The Confirm Termination page is displayed.

4. Enter the **Termination Date**.

The termination date can be in the past, the current date, or any date in the future. You can use custom logic to validate the date entered for the cancellation. If the validation fails, an error message is displayed.

5. Click **Calculate** to calculate the difference in billing amount.

    CPQ displays values for different fields, such as the Pending Billing (Original = the amount you had paid, Projected = the amount to be credited/debited depending on the termination date, and Difference = the difference between the former field values). If your product has different Charge Types, the system displays the amount divided among the different Charge Types also. If your product is a Bundle and contains multiple Options, the system displays the amount divided among the Option products. Also, terminating a bundle cancels all the associated options configured inside that bundle.

    The Projected and Different amount is calculated simultaneously when you click **Calculate** using the Billing Schedules and Billing APIs. This gives you a quick overview of the difference you have to pay to or receive from the customer.

    For example, if your Asset, priced at USD 1200, contains the **Start Date** as 01/01/2016, **End Date** as 12/31/2016, and **Termination Date** as 07/31/2016, the amount populated in the different fields are:

    Original = USD 1200

    Projected = USD 300

    Difference = USD -900

6. Click **Confirm**.

    The status of the cancelled asset line items shows *Pending Cancelled* on the Installed Products page.

7. Go to the Cart and review the following fields and their values.

    - Net Price
    - Line Status
    - Selling Term
    - End Date

> ⓘ   You can view the change in the **Delta Quantity** and **Delta Price** on the Cart. For the above example, **Delta Price** is shown as USD -900.
>
> **Delta Quantity** and **Delta Price** is 0 for the following scenarios:
>
> i. Your Bundle or Standalone product has **Charge Type** = *One Time*.
> ii. You do not have Conga Billing installed in your org.

8. Click **Finalize**.

   After you accept the quote and activate the order for the terminated assets, you can view the impact on the following fields on the Account page:

   - For an Asset Line Item, **Asset Status** changes to *Cancelled*, **Delta Price** and **Delta Quantity** contain new values.

Asset Line Items										
Action	Asset Name	Asset Status	Quantity	Delta Quantity	Delta Price	Start Date	Is Primary Line	Billing Frequency	Billing Rule	Price Type
Edit | Del	Bundle-4778	Cancelled	1.00000	-1.00000	USD -1,313.18867	7/14/2016	✓	Monthly	Bill In Advance	Recurring
Edit | Del	Bundle-4778	Cancelled	1.00000	-1.00000	USD -220.00000	7/15/2016	☐	Monthly	Bill In Advance	Recurring
Edit | Del	Option2-4778	Cancelled	1.00000	-1.00000	USD -219.35488	7/14/2016	✓	Monthly	Bill In Advance	Recurring

   - For an Order Line Item, **Line Status** changes to *Cancelled*, **Delta Price** and **Delta Quantity** contain new values.

Order Line Items									
Action	Record ID	Asset Line Item	Line Status	Quantity	Net Price	Delta Quantity	Delta Price	Is Primary Line	Start Date	Derived From
Edit | Del	a2kW0000000UP8l	Bundle-4778	Cancelled	1.00000	USD -1,313.18867	-1.00000	USD -1,313.18867	✓	7/14/2016	LI-0000132980
Edit | Del	a2kW0000000UP8m	Bundle-4778	Cancelled	1.00000	USD -220.00000	-1.00000	USD -220.00000	☐	7/15/2016	LI-0000132981
Edit | Del	a2kW0000000UP8n	Option2-4778	Cancelled	1.00000	USD -219.35488	-1.00000	USD -219.35488	✓	7/14/2016	LI-0000132982

After the assets are cancelled, CPQ selects the **Inactive** flag for the asset line items with *Cancelled* status so that these asset line items do not show on the Cart for the successive ABO actions.

To check the status of your assets, the **Approval Stage** of the Quote/Proposal must be *Accepted*. To view the assets, select the account of the proposal and navigate to Asset Line Items (Sold To) related list.

A new entry is also made in the Asset Transaction History related list. For more information, see Asset Transaction History.

Use Case: Same Day Cancellation

While terminating an asset, CPQ charges the customer for the period between the Start and End Date of an asset. If you have Conga Billing installed in your org, the billing impact is shown while terminating an asset. During billing, CPQ determines the refund value from the Cancellation Date captured in the asset and refunds to the customer accordingly. The refund amount differs based on the **Same Day Cancellation** setting. For more information on enabling this setting, see Billing System Properties.

- When the **Same Day Cancellation** is set to True, the asset cancellation is applicable on the same day. For example, while terminating an asset, you enter the **Termination Date** as 6/30/2017, the cancellation will be effective from 6/30/2017.
- If the **Same Day Cancellation** is set to False, the asset cancellation is applicable after a day. For example, while terminating an asset, you enter the **Termination Date** as 6/30/2017, the cancellation will be in effect a day later, that is 7/1/2017.

Same Day Cancellation is True

New Sale

You do a new sale of a product where:

Start Date	End Date	Selling Term	Net Price
01/01/2017	12/31/2017	12	24000

Asset Termination

You terminate the asset on 6/30/2017:

Start Date	End Date	Selling Term	Net Price	Delta Price
01/01/2017	6/30/2017	5.96667	(12066.66)	(12066.66)

Same Day Cancellation is False

New Sale

You do a new sale of a product where:

Start Date	End Date	Selling Term	Net Price
01/01/2017	12/31/2017	12	24000

Asset Termination

You terminate the asset on 6/30/2017:

Start Date	End Date	Selling Term	Net Price	Delta Price
01/01/2017	6/30/2017	6.00000	(12000.00)	(12000.00)

Use Case: Terminating Renewed Assets

If you terminate an asset after renewing it, the billing amount is calculated for the renewal period (not from the inception of the asset). CPQ displays the net price of the current year asset (renewed asset) on the Confirm Termination page.

> ⓘ The termination date can be in the past, the current date, or any date in the future. You can use custom logic to validate the date entered for the cancellation.

New Sale

You do a new sale of a product where:

Start Date	End Date	Selling Term	Net Price
01/01/2019	12/31/2019	12	1200

Asset Renewal

You renew the asset where:

Start Date	End Date	Selling Term	Net Price
01/01/2020	10/31/2020	10	1000

Order Activation

After you activate the order:

Current Net Price of the Asset	Total Net Price of the Asset
1000	2200

Asset Termination

When you terminate the asset, CPQ displays the current net price of the asset as 1000 on the Confirm Termination page.

Use Case: Terminating an Asset with Ramp Lines

This use case describes how CPQ calculates the end date of an asset with ramps when you terminate the asset prematurely. For example, you sold a product with three ramps for three years. When you terminate the asset before the end date of the first ramp, CPQ sets the start date as the end date for the rest of future ramp lines and refunds full amount.

> ⓘ The Same Day Cancellation is supported to work with *Billing Preference* as well as *Calendar* type of selling term calculation methods. For more information, see Use Case: Same Day Cancellation.

New Sale

You do a new sale of a product with three ramps:

Ramp	Start Date	End Date	Selling Term
1	1/1/2020	12/31/2020	12
2	1/1/2021	12/31/2021	12
3	1/1/2022	12/31/2022	12

Asset Termination

The following are different use cases of terminating assets with ramp lines.

> ⓘ The **Same Day Cancellation** is set to *False* in these use cases. For more information on enabling this setting, see Billing System Properties.

Use Case 1

You terminate the asset with Terminate Date as 11/30/2020 (before the end date of the first ramp).

Ramp	Start Date	End Date	Refund
1	1/1/2020	11/30/2020	1 month
2	1/1/2021	1/1/2021	1 (full term refund)
3	1/1/2022	1/1/2022	1 (full term refund)

On the second and third ramp lines, the start will be equal to the end date and the full amount will be refunded.

Use Case 2

You terminate the asset with Terminate Date as 11/30/2021 (before the end date of the second ramp).

Ramp	Start Date	End Date	Refund
1	1/1/2020	12/31/2020	NA (because you consumed the entire term)
2	1/1/2021	11/30/2021	1 month refund
3	1/1/2022	1/1/2022	1 (full term refund)

On the third ramp, the start will be equal to the end date and the full amount will be refunded.

Use Case 3

You terminate the asset with Terminate Date as 11/30/2022 (before the end date of the third ramp).

Ramp	Start Date	End Date	Refund
1	1/1/2020	12/31/2020	NA (because you consumed the entire term)
2	1/1/2021	12/31/2021	NA (because you consumed the entire term)
3	1/1/2022	11/30/2022	1 month refund

> ⓘ If Same Day Cancellation is set to *True*, the refund will be for 1 month and 1 day. For more information on how Same Day Cancellation works, see Use Case: Same Day Cancellation.

Suspending an Asset

You can suspend an asset for a particular period of time, which means the asset is temporarily not in effect. For example, ABC Corp is an electricity service provider who has installed meters at customer locations to measure the usage of the electricity. ABC Corp bills its customers based on their usage of the electricity. If a customer does not pay the bill for some time, a finance operations user from ABC Corp suspends the electricity service for that customer until the customer pays the due bill.

> ⓘ When an asset is suspended, it is not available for any other ABO action (except *Terminate*) until you manually resume it. You can suspend assets only through Suspend APIs (SOAP and REST), but not on the UI. For more information, see Suspending Assets and CPQ Asset-Based Ordering APIs.

You must create and pass a business object (quote, agreement, or order) to be associated with the cart. When you execute the Suspend API code in the Developer Console, CPQ creates a transactional cart with the associated business object. After executing the API, the Asset Status field on asset line item is *Pending Suspension*. Upon order activation, the Asset Status field on asset line item is *Suspended*.

Key Points to Note

- The Pricing Status for the suspended asset line items on product configuration is *Complete*. CPQ does not perform pricing calculations on a cart if it has suspended assets.

- The Constraint Status Check for the suspended asset line items on product configuration is *Complete*. CPQ does not execute constraint rules on a cart if it has suspended assets.
- When you finalize the cart (using only the Finalize API), CPQ generates the respective line items for the associated business object. If the cart is a associated with a quote, agreement, or order, CPQ generates the proposal line items, agreement line items, or order line items respectively.
- A cart can only consist of line items with status *Suspended*. You cannot select line items with any other status because CPQ does not execute pricing or constraint rules on a cart if it has suspended assets.

Resuming an Asset

You can resume a suspended asset, which means bringing it back to effect and making it available for other ABO actions. For example, ABC Corp is an electricity service provider who has installed meters at customer locations to measure the usage of the electricity. ABC Corp bills its customers based on their usage of the electricity. Because a customer did not pay the bill for some time, a finance operations user from ABC Corp suspended the electricity service for that customer. Now that the customer has paid the due bills, the finance operations user resumes the electricity service for that customer.

> ⓘ   You can resume assets only through Resume APIs (SOAP and REST), but not on the UI.
> For more information, see Resuming Assets and CPQ Asset-Based Ordering APIs.

You must create and pass a business object (quote, agreement, or order) to be associated with the cart. When you execute the Resume API code in the Developer Console, CPQ creates a transactional cart with the associated business object. After executing the API, the Asset Status field on asset line item is *Pending Resume*. Upon order activation, the Asset Status field on asset line item is *Activated*.

Key Points to Note

- The Pricing Status for the activated (resumed) asset line items on product configuration is *Complete*. CPQ does not perform pricing calculations on a cart if it has activated assets.
- The Constraint Status Check for the resumed (resumed) asset line items on product configuration is *Complete*. CPQ does not execute constraint rules on a cart if it has resumed assets.
- When you finalize the cart (using only the Finalize API), CPQ generates the respective line items for the associated business object. If the cart is a associated with a quote,

agreement, or order, CPQ generates the proposal line items, agreement line items, or order line items respectively.

Managing Assets through Contracts

CPQ allows you to manage assets through contracts. A contract or an agreement is a legally binding arrangement between two or more entities.

Prerequisites

- For the Assets and Contracts integration to work, the following packages must be available in your org:
    - Conga Contract Lifecycle Management
    - Conga Quote CLM Integration
    - Conga CLM Configuration Integration
- The **Auto Create Order** setting in **Comply System Properties** must be enabled if you want to create an order and asset as soon as an agreement is activated.

How asset and contract flows work

There are two process flows you must consider:

- Contract + Proposal Flow: In this flow, both Contract and Quote/Proposal are involved.
- Contract Flow: In this flow, only Contract is involved (no Quote/Proposal). The assets are created through contracts/agreements using the normal contract life cycle flow. After you finalize and activate a contract (containing agreement line items), the corresponding asset line items are created.

The following table explains the CPQ behavior when the **Auto Create Order** setting is configured.

Flow	Auto Create Order (Proposal System Properties)	Auto Create Order (Comply System Properties)	CPQ behavior
Contract + Proposal Flow	False	True	A Quote/Proposal is created followed by a Contract. The Asset Line Items and Order Line Items are created when you activate a Contract.
Contract Flow	False	True	Contract is created without a Quote/Proposal. The Asset and Order Line Items are created when you activate a Contract.

> (i) It is recommended to refrain from enabling **Auto Activate Order** from **Comply System Properties** and **Proposal System Properties** simultaneously.
> The Conga Contract Lifecycle Management package version must be 8.4.0325 (8.325.1) or higher to use the features mentioned above.

- Managing Assets in the Contract + Proposal Flow
- Managing Assets in the Contract Flow

Managing Assets in the Contract + Proposal Flow

This section explains how you can manage assets in the Contract + Proposal flow.

Prerequisite

Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.

To manage assets in the contract + proposal flow

1. In the Salesforce org, select **Conga Proposal Management**.
2. On the **Proposals** tab, click **New**.
3. Enter requisite details, such as Proposal Name, Proposal Start Date, and Proposal End Date.

4. Associate an Account, an Opportunity, and a Price List to your record.
5. Click **Configure Products** to navigate to the Catalog and configure the required products with options and attributes.
6. After the configuration is finalized, click **Finalize** to navigate back to the Quote/ Proposal detail page.
7. Click **Accept** to accept the finalized line items in your Quote/Proposal.
   After you have accepted the Quote/Proposal, **Create Agreement with Line Items** is active.
8. Click **Create Agreement with Line Items** to copy all Proposal Line Items to the Agreement Line Items. CPQ begins the agreement creation process.
9. Enter the mandatory details when prompted and save the agreement. The **Agreement Line Items** related list lists the agreement line items.
10. Click **Generate** to generate an agreement document.
11. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
12. Refresh the org to see that the **Order** and **Order Line Items** related lists now contain records.
13. Go to the order record, enter the **Ready for Activation Date** and click **Save**. After you activate the order, assets are generated.

> ⓘ   The asset line items are associated with the agreement, not with the proposal.

The assets are visible on the account. The **Status** of all **Order Line Items** and **Asset Line Items** is *Activated*.

Changing Assets in the Contract + Proposal Flow

This section explains how you can change assets in the Contract + Proposal flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To change assets in the contract + proposal flow

1. In the Salesforce org, select **Conga Proposal Management**.
2. Create a proposal for asset change.
3. Click **Configure Products** and navigate to the Installed Products page.

4. Select the asset you want to update and click **Change**. On the cart page, **Line Status** changes to *Amended*.
5. You can change one or more of the following parameters:

Parameter	Description
Attribute Value	To change the Attribute value, click the wrench icon (🔧) next to the asset. You will see the **Product Attributes** page. Select the new attribute value and click **Go to Pricing** to load the cart page.
Option	Expand the Show Options tree and select from the listing of the options to display all Product Options. From the resulting list, select the option with which you want to replace the original product option.
Quantity	Enter the number of units of the product your customer wants to purchase.
Adjustment Type	If you want to adjust the price of the asset, select an adjustment type.
Price	Enter a value that is the amount your customer is charged for the product without accounting for taxes and other charges.
Start Date	The date you want to start billing your customer for this purchase.
End Date	The date you want to stop billing your customer for this purchase.
Billing Frequency	Select one of the following options **Monthly** - To generate a bill once every month **Quarterly** - To generate a bill once every three months **Half-yearly**- To generate a bill once in the middle of a calendar or financial year **Yearly** - To generate a bill once every year **Usage** - To generate a bill based on usage For more information, see Billing Preferences.

Parameter	Description
Billing Rule	Select one of the following options **Bill in Advance** - To bill your customer before the product is delivered **Bill in Arrears** - To bill your customer after the product is delivered **Bill on Ready for Billing Date** - To bill your customer with a consolidate invoice, on a day of their choice.
Billing Preference	Select a predefined billing preference. For more information, see Billing Preferences.
Payment Term	Lookup and select a predefined Payment Term so your customers know that they must pay outstanding charges within a stipulated time. For more information, see Payment Term.

6. Click **Reprice** to view the changed price.
7. Click **Finalize** to navigate back to the quote. After you accept the quote, the **Create Agreement with Line Items** is active.
8. Click **Create Agreement with Line Items** to copy all Proposal Line Items to the Agreement Line Items. CPQ begins the agreement creation process.
9. Enter the mandatory details when prompted and save the agreement. The **Agreement Line Items** related list lists the agreement line items..

> ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

10. Click **Generate** to generate an agreement document.
11. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
    After you activate the order for the changed assets, the status of the changed asset changes from *New* to *Amended* on the account.

For more information, see Changing an Asset.

Renewing Assets in the Contract + Proposal Flow

This section explains how you can renew assets in the Contract + Proposal flow.

Prerequisite

- The **Renewal Business Object Type** is set to Proposal.
- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To renew assets in the contract + proposal flow

1. In the Salesforce org, select **Conga Proposal Management**.
2. Create a proposal for asset renewal.

   > ⓘ - You need to manually create a renewal quote only if you are renewing assets manually.
   > - If you are renewing assets in Auto Renewal Mode, the renewal quote is already created immediately after you activated the order during new sale. For more information, see Renewing Assets in Auto Renewal Mode.
   > - If you are renewing assets in OnDemand Renewal Mode, the renewal quote is created based on the defined **Renewal Lead Time** after you clicked a **custom button** on the account. For more information, see Renewing Assets in OnDemand Renewal Mode.

3. Click **Configure Products**.
   When you configure products in this renewal quote, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

   > ⓘ On the new renewal quote, the **Start Date** = **Parent Quote's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

   The Approval Stage of the quote is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal quote.
4. Add products to the cart if required.
5. Click **Finalize** to navigate back to the quote. After you accept the quote, the **Create Agreement with Line Items** is active.
6. Click **Create Agreement with Line Items** to copy all Proposal Line Items to the Agreement Line Items. CPQ begins the agreement creation process.

7. Enter the mandatory details when prompted and save the agreement. The **Agreement Line Items** related list lists the agreement line items..

> ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

8. Click **Generate** to generate an agreement document.
9. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
   After you activate the order for renewed asset, the status of the renewed asset changes from *New* to *Renewed* on the account.

For more information, see Renewing an Asset.

Swapping Assets in the Contract + Proposal Flow

This section explains how you can swap assets in the Contract + Proposal flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To swap assets in the contract + proposal flow

1. In the Salesforce org, select **Conga Proposal Management**.
2. Create a proposal for asset swap.
3. Click **Configure Products** and navigate to the Installed Products page.
4. Select the assets that you want to swap.
5. Select the product from **Available Products** section.
6. Click **Purchase**. The Confirm Installed Products Swap page or the Confirm Swap pop-up is displayed.
7. From the **Effective End Date** lookup, select the date from when you want the swap to be effective, and click **Calculate**.
   The current asset will end on the effective end date you selected and swapped asset will start from the next day. If the **Start Date** of the swapped asset is a future date, a validation message is displayed to enter a valid **Start Date**. For example, an asset A with **Start Date** = 1 Jan, 2017 and **End Date** = 31 Jan, 2017 is swapped with a product B on June 5, 2016. Instead of taking June 6, 2016, as **Start Date** for product B, the system shows a validation message that the **End Date** of product B should be after the **Start**

Date of product A.

8. View the Description and the Difference in the Original and the New Product.
9. To proceed with the Swap, click **Confirm**. Click **Back to Selection** to go back to the last page.

> ⓘ If you select multiple assets on the Installed Products page, the Swap button will be disabled.

10. Click **Finalize** to navigate back to the quote. After you accept the quote, the **Create Agreement with Line Items** is active.
11. Click **Create Agreement with Line Items** to copy all Proposal Line Items to the Agreement Line Items. CPQ begins the agreement creation process.
12. Enter the mandatory details when prompted and save the agreement. The **Agreement Line Items** related list lists the agreement line items..

> ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

13. Click **Generate** to generate an agreement document.
14. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
    After you activate the order for swapped asset, the status of the swapped asset changes from *New* to *Upgraded* on the account.

For more information, see Swapping an Asset.

Terminating Assets in the Contract + Proposal Flow

This section explains how you can terminate assets in the Contract + Proposal flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To terminate assets in the contract + proposal flow

1. In the Salesforce org, select **Conga Proposal Management**.
2. Create a proposal for asset termination.

3. Click **Configure Products** and navigate to the Installed Products page.
4. Select the assets that you want to cancel and click **Terminate**. The Confirm Termination pop-up is displayed.
5. Enter the **Termination Date** and click **Confirm**.
   The termination date can be in the past, the current date, or any date in the future. You can use custom logic to validate the date entered for the cancellation. If the validation fails, an error message is displayed.
   The status of the cancelled asset line items shows *Pending Cancellation* on the Installed Products page.
6. Go to the Cart and review the following fields and their values.
   - Net Price
   - Line Status
   - Selling Term
   - End Date
7. Click **Finalize** to navigate back to the quote. After you accept the quote, the **Create Agreement with Line Items** is active.
8. Click **Create Agreement with Line Items** to copy all Proposal Line Items to the Agreement Line Items. CPQ begins the agreement creation process.
9. Enter the mandatory details when prompted and save the agreement. The **Agreement Line Items** related list lists the agreement line items..

   > ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

10. Click **Generate** to generate an agreement document.
11. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
    After you activate the order for the terminated assets, the status of the terminated asset changes from *New* to *Cancelled* on the account.

For more information, see [Terminating an Asset](#).

Managing Assets in the Contract Flow

This section explains how you can manage assets in the Contract flow.

Prerequisite

The custom setting **Auto Create Order** must be set to True under **Setup > Develop > Custom Settings > Comply System Properties**.

To manage assets in the contract flow

1. In the Salesforce org, select **Conga Contract Management**.
2. On the **Agreements** tab, click **New**.
3. Enter required details, such as Agreement Name, Agreement Start Date, and Agreement End Date.
4. Select the **Single Transaction Adjustment** checkbox to control the adjustment of the billing based on the context in which the discount is applied. When you select this checkbox on an agreement, billing schedules are adjusted from the start of the contract term. For more information, see Calculating Billing Amount based on the Contract Term and the Single Transaction Adjustment Flag.
5. Associate an Account and a Price List to your agreement record.
6. Click **Configure Products** to navigate to the Catalog and configure the required products with options and attributes.
7. After the configuration is finalized, click **Finalize** to navigate back to the agreement. CPQ creates the agreement line items, which are visible under the **Agreement Line Items** related list.
8. Now that your line items finalized, click **Generate** to generate an agreement document.
9. After the negotiations with your customer is complete, click **Activate** to put the agreement in effect.
10. Refresh the org to see that the **Order** and **Order Line Items** related lists now contain records.
11. Go to your order record and enter the **Ready for Activation Date** and click **Save**. After you activate the order, assets are generated. On the account, the **Status** of all your **Order Line Items** and **Asset Line Items** is *Activated*.

Changing Assets in the Contract Flow

This section explains how you can change assets in the Contract flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To change assets in the contract flow

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement for asset change.

   > ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

3. Click **Configure Products** and navigate to the Installed Products page.

   > ⓘ Using the **Amend** button on an agreement does not amend assets. You must use the **Configure Products** button on the agreement to change assets through the Cart. Also, CPQ allows you to modify all assets associated with an account, not just the assets associated with that particular agreement.

4. Select the asset you want to update and click **Change**. On the cart page, **Line Status** changes to *Amended*.
5. You can change one or more of the following parameters:

Parameter	Description
Attribute Value	To change the Attribute value, click the wrench icon (🔧) next to the asset. You will see the **Product Attributes** page. Select the new attribute value and click **Go to Pricing** to load the cart page.
Option	Expand the Show Options tree and select from the listing of the options to display all Product Options. From the resulting list, select the option with which you want to replace the original product option.
Quantity	Enter the number of units of the product your customer wants to purchase.
Adjustment Type	If you want to adjust the price of the asset, select an adjustment type.
Price	Enter a value that is the amount your customer is charged for the product without accounting for taxes and other charges.

Parameter	Description
Start Date	The date you want to start billing your customer for this purchase.
End Date	The date you want to stop billing your customer for this purchase.
Billing Frequency	Select one of the following options **Monthly** - To generate a bill once every month **Quarterly** - To generate a bill once every three months **Half-yearly**- To generate a bill once in the middle of a calendar or financial year **Yearly** - To generate a bill once every year **Usage** - To generate a bill based on usage For more information, see Billing Preferences.
Billing Rule	Select one of the following options **Bill in Advance** - To bill your customer before the product is delivered **Bill in Arrears** - To bill your customer after the product is delivered **Bill on Ready for Billing Date** - To bill your customer with a consolidate invoice, on a day of their choice.
Billing Preference	Select a predefined billing preference. Select a predefined billing preference. For more information, see Billing Preferences.
Payment Term	Lookup and select a predefined Payment Term so your customers know that they must pay outstanding charges within a stipulated time. For more information, see Payment Term.

6. Click **Reprice** to view the changed price.
7. Click **Finalize** to navigate back to the agreement. CPQ creates the agreement line items.
8. Click **Generate** to generate an agreement document.
9. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.

After you activate the order for the changed assets, the status of the changed asset changes from *New* to *Amended* on the account.

For more information, see Changing an Asset.

Renewing Assets in the Contract Flow

Renewals are the most common and effective ways to retain existing customers and drive growth and sales for your business. Asset renewals eliminate the scope of pricing errors by extending the agreement. Therefore when you renew an asset, you basically regenerate the asset life-cycle for a new duration. CPQ supports the following types of renewals:

- Manual renewal of assets
- Auto renewal of assets

Renewing Assets Manually in the Contract Flow

CPQ allows you to renew an existing asset anytime you want, based on your business requirements.

To renew an asset

New Sale

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement.
3. Add products to the cart.
   If the administrator has configured the **Renewal Adjustment Type** and **Renewal Adjustment Amount** columns for the cart of the current flow, you will see those columns.
   a. In the **Renewal Adjustment Type** drop-down for a line item, select *% Uplift* by how much you want to uplift the asset price during renewal. In this case, enter the required percentage in the **Renewal Adjustment Amount** field of the line item.
   b. In the **Renewal Adjustment Type** drop-down for a line item, select *Uplift Amount* by how much you want to uplift the asset price during renewal. In this case, enter the required uplift amount in the **Renewal Adjustment Amount** field of the line item.

   > ⓘ CPQ considers these renewal adjustments only during asset renewal. These values do not impact the current transaction.

4. Click **Finalize** to navigate back to the agreement. CPQ creates the agreement line items.

5. Click **Generate** to generate an agreement document.

6. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.

7. Go to the order record, enter the **Ready for Activation Date** and click **Save**.
   After you activate the order, assets are generated. On the account, the **Status** of all your **Order Line Items** and **Asset Line Items** is *Activated*.

Renewal

1. In the Salesforce org, select **Conga Contract Management**.

2. Create an agreement for asset renewal.

   > ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

3. Click **Configure Products** and navigate to the Installed Products page.

   > ⓘ Using the **Renew** button on an agreement does not renew assets. You must use the **Configure Products** button on the agreement to renew assets through the Cart. Also, CPQ allows you to renew all assets associated with an account, not just the assets associated with that particular agreement.

4. Select the assets that you want to renew.

5. Click **Renew**.

   > ❗ If an asset is associated with a system-generated renewal agreement and the **Alert Asset Related To Renewal Cart** setting is enabled, a warning is displayed about the existence of a renewal agreement for this asset. The **Renewal Line Item** field on the asset indicates which renewal configuration is this asset currently associated with. Click **Proceed without delinking** to continue with manual renewal or **Cancel** to go to the Installed Products page for further action.

   If the asset is not associated with any system-generated renewal agreement or if the **Alert Asset Related To Renewal Cart** setting is disabled, CPQ either reloads the Installed Products page or displays the Confirm Renewal pop-up or the Confirm Renewal intermediate page depending on how your administrator has configured the **Cotermination Preferences During Renewal** and **Default Renewal Cotermination Option** settings. For more information, see Configuring Custom Settings.

6. Perform one of the following actions:

    - If the Installed Products page is reloaded, click **Go to Pricing**. The cart page is displayed.
    - If the Confirm Renewal intermediate page is displayed, select one from the following options to define the renewal date and click **Confirm**. The cart page is displayed.

    Confirm Renewal

    ○ Use Agreement End Date 12/31/2017

    ○ Retain the current Asset End Date

    ○ Use the Farthest Asset End Date

    ○ Enter Renewal Date

    Confirm   Cancel

    - **Use Agreement End Date:** To renew the asset until the date agreement ends. The Agreement End Date is displayed next to the option.

      > ⓘ If you perform asset renewal through the Asset Manager flow or CSR flow, the **Use Agreement End Date** option is not displayed on the Confirm Renewal intermediate page.

    - **Retain the current Asset End Date:** To renew the current asset on the date it expires.
    - **Use the Farthest Asset End Date:** To choose the farthest end date of all assets for renewal.

      > ⓘ This option is visible only if the asset has more than one renewable charge types or if the selected asset has multiple renewable lines with different end dates.

    - **Enter Renewal Date:** To select a custom renewal date.
    - If the Confirm Renewal pop-up is displayed, select a date in the **Renewal Date** field and click **Confirm**. The cart page is displayed.

Confirm Renewal

X

Renewal Date   08/03/2020

Confirm   Cancel
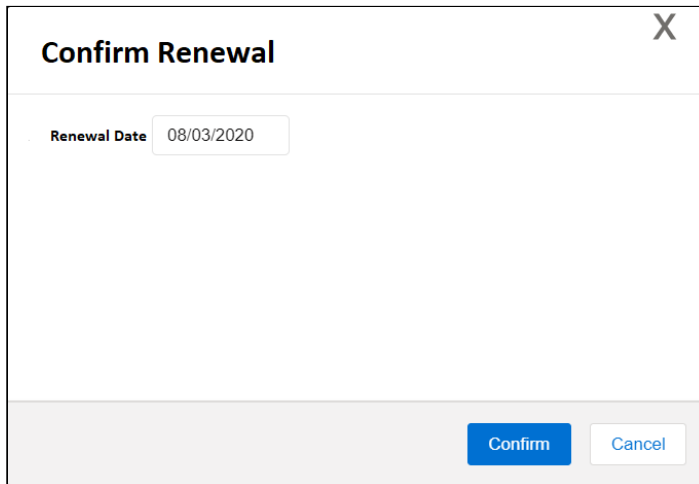
7. On the cart, make changes to the asset if required.
   While finalizing the original agreement, if you have specified the renewal adjustment (%Uplift or Uplift Amount), you will see the change in the Net Price. Click **Confirm**.

   ⓘ If the renewal is loaded with asset pricing and if the renewal adjustment was specified during the original sale, the base price on the renewal transaction reflects the adjustment. If there is not asset pricing, the base price is the new list price of the asset.

8. Click **Reprice** to apply and load the asset with the changes on the cart page.
9. Click **Finalize** to navigate back to the agreement. CPQ creates the agreement line items.
10. Click **Generate** to generate an agreement document.
11. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
12. Go to the order record, enter the **Ready for Activation Date** and click **Save**.
13. After you activate the order, renewal assets are generated. On the Accounts page, you can verify that the status of the renewed asset changes from *New* to *Renewed*. You can trace the renewal activity and modifications from the **Order Line Items** and **Asset Transaction History** Related Lists.

ⓘ **Line Status** for one-time products will remain *Existing*.

Renewing Assets Automatically in the Contract Flow

CPQ allows you to auto-generate renewal agreements based on the fulfillment of order or the expiration of subscription. Through renewal agreements, you can forecast and analyze

the sales pipeline. With renewal agreements, you get the finer visibility into the pricing and configuration of assets within the renewal pipeline. The benefits of auto renewals are:

- Accurate forecasting on the asset state and sales pipeline
- Faster and simpler processing with automated renewal
- Automatic closure of opportunity on asset expiry

Types of Asset Renewal Modes

There are two types of renewal modes, defined in **Renewal Execution Mode**:

- Auto
- OnDemand

> ⓘ It is recommended not to use these renewal modes interchangeably.

Renewing Assets in Auto Renewal Mode in the Contract Flow

When **Renewal Execution Mode** is set to *Auto*, CPQ automatically renews an existing agreement for all assets it has, as soon as the order is activated. You may want to renew an existing opportunity in Auto renewal mode when:

- You require renewal agreements for forecasting
- You must work on renewal agreements in advance

The following diagram describes the flow of **Auto** renewals.
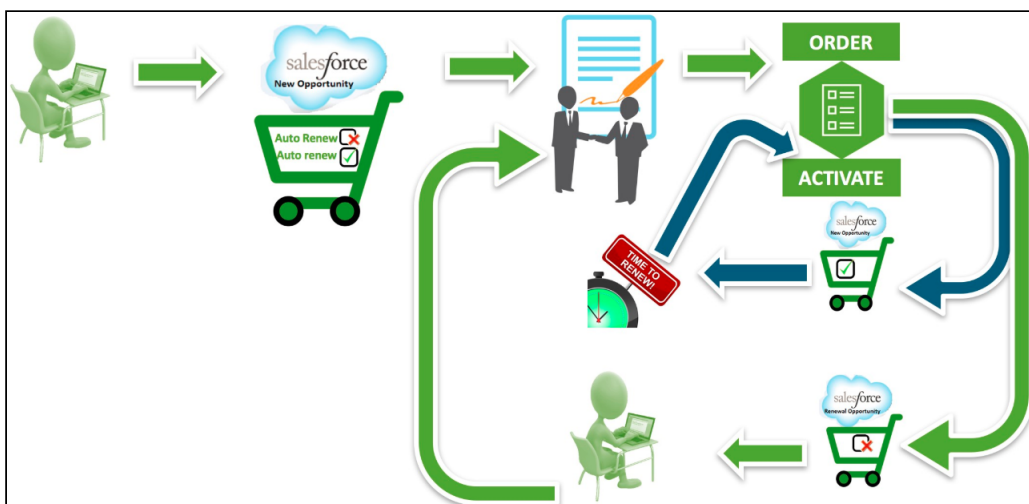
Prerequisites

- The **Renewal Business Object Type** is set to Agreement.
- The **Renewal Execution Mode** is set to *Auto*.
- The **Renewal Group Fields** are defined.

- The AssetRenewalJobScheduler batch job is scheduled.

How Auto Renewal Mode Works

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement.
3. Add products to the cart and finalize it.
4. Click **Generate** to generate an agreement document.
5. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
6. After you activate the order, assets are generated. The assets are active and visible on the account.
7. CPQ creates auto renewal agreements immediately after you activate the order.

By default, CPQ groups asset line items into renewal agreements by the **Auto Renew** flag and other **Renewal Group Fields** defined. There will be two renewed agreements: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

> ⓘ Renewal agreement that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal agreement and renews the asset for the next term. The agreement will be automatically set to Accepted without any intervention (this is called Touchless Renewal). Renewal agreement that has assets with Auto Renew = False: You need to manually process the agreement.

On the Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the AssetRenewalJobScheduler job is executed, the status of asset groups changes to Completed and the renewal agreement is created. The name of the renewal agreement will be Renew:<original_agreement_id>-<name_of_price_list>-<agreement_end_date>.

When the renewal agreement is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal agreement. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal agreement for this asset.
CPQ updates the currency of the opportunity line items created on auto-renewal agreement's opportunity with the same currency as of the Auto renewal agreement.

The renewal agreement inherits the **Bill To** and **Ship To** account values from the

original agreement (parent agreement). In the following example, different accounts are configured in the original agreement:

Quote Header Field	Value
Account (Sold To)	ABC Corp
Bill To	ABC Bill Corp
Ship To	ABC North Corp

The renewal agreement inherits these account values from the original agreement only when **Renewal Execution Mode** is set to *Auto*.

8. When you configure products in this renewal agreement, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ On the new renewal agreement, the **Start Date** = **Parent agreement's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the agreement is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal agreement.

9. Add products to the cart if required.
10. Click **Finalize** to navigate back to the agreement.
11. Click **Generate** to generate an agreement document.
12. After you accept the agreement, an order is generated.

Renewing Assets in OnDemand Renewal Mode in the Contract Flow

When **Renewal Execution Mode** is set to *OnDemand*, CPQ automatically renews all assets based on the defined **Renewal Lead Time**. CPQ supports Account mode and Product mode for OnDemand renewal of assets. However, these modes are mutually exclusive, which means you must use only one mode in one org. You may want to renew an existing opportunity in OnDemand renewal mode:

- During one-time legacy asset data migrations
- During one time renewal agreement creation for existing active asset base
- When minimal changes are required on the renewal agreements because of any ABO changes

Account Mode

This mode works based on the global **Renewal Lead Time** setting in Installed Product Settings. CPQ automatically renews all assets on the account (possibly from different agreements) based on the defined global **Renewal Lead Time** after you click a **custom button** on the account.

The following diagram describes the flow of **OnDemand** renewals. In this diagram, Renewal **Lead Time** is 120 days.
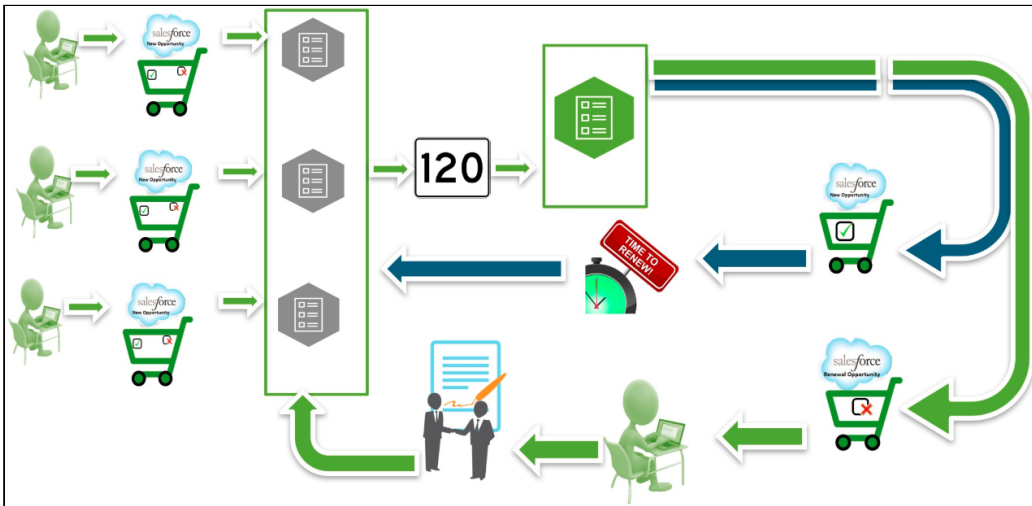
Over a period of time, you sell some products/services through different agreements, which might have varying end dates. After the original agreements are converted into orders and the order are activated, assets are generated. All assets are visible on the account. When you want to renew the assets that will expire in 120 days from today, you click the **custom button** on the account. CPQ compares the asset line items' end dates with the **Renewal Lead Time** defined and triggers the creation of renewal agreements for all those assets (from different agreements) that will expire in 120 days.

Prerequisites

- The **Renewal Business Object Type** is set to Agreement.
- The **Renewal Execution Mode** is set to OnDemand.
- A custom button is created on the account or a custom link is created on the quote.

  > ⓘ If the custom button is on the account, you can renew all assets in the account based on the defined Renewal Lead Time. If the custom link on the quote, you can renew assets from a quote based on the defined Renewal Lead Time.

- The **Renewal Lead Time** is defined.
- The **Renewal Group Fields** are defined.
- The *AssetRenewalJobScheduler* batch job is scheduled.

How OnDemand Renewal Mode Works

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement.
3. Add products to the cart and finalize it.
4. Click **Generate** to generate an agreement document.
5. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
6. After you activate the order, assets are generated. The assets are active and visible on the account.
7. Click the **custom button** on the account when you want to trigger the creation of renewal agreements.
8. CPQ creates renewal agreements based on the defined **Renewal Lead Time**, considering the expiry date of assets (from different agreements).

   By default, CPQ groups asset line items by Account and the Price List. However, if other parameters are configured in **Renewal Group Fields**, CPQ groups asset line items accordingly. If some assets had **Auto Renew** flag set to True or False, there will be two renewed agreements: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

   > ⓘ Renewal agreement that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal agreement and renews the asset for the next term. The agreement will be automatically set to Accepted without any intervention (this is called Touchless Renewal). Renewal agreement that has assets with Auto Renew = False: You need to manually process the agreement.

   After CPQ triggers renewal agreement creation, on the Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the *AssetRenewalJobScheduler* job is executed, the status of asset groups changes to Completed and the renewal agreement is created. The name of the renewal agreement will be Renew:<name_of_price_list>-<agreement_end_date>.
   When the renewal agreement is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal agreement. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal agreement for this asset.

9. When you configure products in this renewal agreement, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are

available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ On the new renewal agreement, the **Start Date** = **Parent agreement's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the agreement is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal agreement.

10. Add products to the cart if required.
11. Click **Finalize** to navigate back to the agreement.
12. Click **Generate** to generate an agreement document.
13. After you accept the agreement, an order is generated.

Product Mode

This mode works based on the product-level **Renewal Lead Time**. CPQ automatically renews all assets (possibly from different agreements across all accounts in the org) based on the defined product-level **Renewal Lead Time** after you execute a code in Developer Console.

Prerequisites

- The **Renewal Business Object Type** is set to Agreement.
- The **Renewal Execution Mode** is set to OnDemand.
- The **Renewal Lead Time** is defined for the required products. See Creating Products. For example, there are two products with the Renewal Lead Time of 20 and 40 days.
- The **Renewal Group Fields** are defined.
- The *AssetRenewalJobScheduler* batch job is scheduled.

How OnDemand Renewal Mode Works

1. In the Salesforce org, select **Conga Contract Management**.
2. Create agreements and configure products with Renewal Lead Time.
3. Add products to the cart and finalize it.
4. Click **Generate** to generate an agreement document.
5. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
6. After you activate the order, assets are generated.
7. Run the following code in Developer Console:

> ⚠️ In the following code, (20,5,100,30) is used as an example Renewal Lead Time. CPQ allows you to use multiple lead times separated by comma.

```
List<Integer> productLeadTimes = new List<Integer>

{20,5,100,30}
;

Apttus_Config2.AssetRenewalSubmitController controller = new
 Apttus_Config2.AssetRenewalSubmitController(productLeadTimes);

// do submit
ID jobId = controller.doSubmitJob();
```

8. CPQ creates renewal agreements based on the defined **Renewal Lead Time**, considering the expiry date of assets (from different agreements across all accounts in the org). For example, if there are two products with the Renewal Lead Time of 20 and 40 days, only the product with Renewal Lead Time = 20 is triggered and its OnDemand renewal agreement is created.

   By default, CPQ groups asset line items by Account and the Price List. However, if other parameters are configured in **Renewal Group Fields**, CPQ groups asset line items accordingly. If some assets had **Auto Renew** flag set to True or False, there will be two renewed agreements: one for the asset lines with Auto Renew = True and the other for asset lines with Auto Renew = False.

   > ⓘ Renewal agreement that has assets with Auto Renew = True: On the expiry date of the asset, CPQ automatically processes the renewal agreement and renews the asset for the next term. The agreement will be automatically set to Accepted without any intervention (this is called Touchless Renewal). Renewal agreement that has assets with Auto Renew = False: You need to manually process the agreement.

   After CPQ triggers renewal agreement creation, on the Account page, the renewed asset groups are listed under Temp Renew Asset Groups in the New status. After the *AssetRenewalJobScheduler* job is executed, the status of asset groups changes to Completed and the renewal agreement is created. The name of the renewal agreement will be Renew:<name_of_price_list>-<agreement_end_date>.

   When the renewal agreement is generated, the **Renewal Line Item** field on the asset line item is updated with the latest renewal configuration ID on the renewal

agreement. When the user tries to manually renew this asset, a warning is displayed about the existence of a renewal agreement for this asset.

9. When you configure products in this renewal agreement, CPQ takes you to the Cart page directly where assets with renewed Start Date, End Date, and Selling Term are available. The Line Status of assets is Renewed and asset pricing calculated according to the renewed Start Date, End Date, and Selling Term.

> ⓘ On the new renewal agreement, the **Start Date** = **Parent agreement's End Date** + 1 and **End Date** = **New Start Date** + Selling Term.

The Approval Stage of the agreement is marked back to Draft allowing you to perform any changes to the renewal configuration. Any change or update to the assets are reflected in the opportunity based renewal agreement.

10. Add products to the cart if required.
11. Click **Finalize** to navigate back to the agreement.
12. Click **Generate** to generate an agreement document.
13. After you accept the agreement, an order is generated.

Swapping Assets in the Contract Flow

This section explains how you can swap assets in the Contract flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To swap assets in the contract flow

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement for asset swap.

> ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

3. Click **Configure Products** and navigate to the Installed Products page.
4. Select the assets that you want to swap.
5. Select the product from **Available Products** section.

6. Click **Purchase**. The Confirm Installed Products Swap page or the Confirm Swap pop-up is displayed.

7. From the **Effective End Date** lookup, select the date from when you want the swap to be effective, and click **Calculate**.
   The current asset will end on the effective end date you selected and swapped asset will start from the next day. If the **Start Date** of the swapped asset is a future date, a validation message is displayed to enter a valid **Start Date**. For example, an asset A with **Start Date** = 1 Jan, 2017 and **End Date** = 31 Jan, 2017 is swapped with a product B on June 5, 2016. Instead of taking June 6, 2016, as **Start Date** for product B, the system shows a validation message that the **End Date** of product B should be after the **Start Date** of product A.

8. View the Description and the Difference in the Original and the New Product.

9. To proceed with the Swap, click **Confirm**. Click **Back to Selection** to go back to the last page.

> ⓘ If you select multiple assets on the Installed Products page, the Swap button will be disabled.

10. Click **Finalize** to navigate back to the agreement. CPQ creates the agreement line items.

11. Click **Generate** to generate an agreement document.

12. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
    After you activate the order for swapped asset, the status of the swapped asset changes from *New* to *Upgraded* on the account.

For more information, see Swapping an Asset.

Terminating Assets in the Contract Flow

This section explains how you can terminate assets in the Contract flow.

Prerequisite

- Ensure that the custom setting **Auto Create Order** is set to True under **Setup > Develop > Custom Settings > Comply System Properties**.
- Assets are already created.

To terminate assets in the contract flow

1. In the Salesforce org, select **Conga Contract Management**.
2. Create an agreement for asset termination.

   > ⓘ The new agreement is not related to the agreement that was created during the new sale. CPQ does not support versioning of the original agreement.

3. Click **Configure Products** and navigate to the Installed Products page.

   > ⓘ Do not use the **Terminate** button on the agreement to terminate assets. If you do so, CPQ terminates only the agreement. In that case, you must terminate the corresponding assets manually unless you do partial termination of the assets using the **Amend** button on the agreement.

4. Select the assets that you want to cancel and click **Terminate**. The Confirm Termination pop-up is displayed.
5. Enter the **Termination Date** and click **Confirm**.
   The termination date can be in the past, the current date, or any date in the future. You can use custom logic to validate the date entered for the cancellation. If the validation fails, an error message is displayed.
   The status of the cancelled asset line items shows *Pending Cancellation* on the Installed Products page.
6. Go to the Cart and review the following fields and their values.
   - Net Price
   - Line Status
   - Selling Term
   - End Date
7. Click **Finalize** to navigate back to the agreement. CPQ creates agreement line items.
8. Click **Generate** to generate an agreement document.
9. After the negotiations are complete with your customer, click **Activate** to bring the agreement in effect.
   After you activate the order for the terminated assets, the status of the terminated asset changes from *New* to *Cancelled* on the account.

   > ⓘ However, the agreement you created to terminate assets is still active. You must terminate it manually to cancel the agreement.

For more information, see [Terminating an Asset](#).

Viewing the Asset Transaction History

The **Asset Transaction History** related list on the Asset Line Item detail page displays information for every Asset-based Order. For every ABO action (Change, Renew, Swap or Terminate), a new transaction and order record is created inside the Asset Transaction History related list.

In the Asset Transaction History related list, click the transaction ID to view the details.

The **Asset Line Item History** denotes the list of transactions made on the same Asset Line Item.

Billing for Assets

After you finalize a proposal and accept a customer's order, the products change from order line item to asset line item. Then, you create an Asset-based Order by creating a quote on the account that contains the installed products or assets. After you create the quote, go to product cart, click **Installed Products**, and select one of the following actions:

- Renew
- Terminate
- Swap
- Change

Every asset action on an asset line item on Installed Product page changes the existing **Billing Schedule**, **Invoice Status**, and the **Billing Cycle Start and End Date** for that asset line item or the Installed Product.

Renewal of an asset will impact the Billing Schedules because the asset **Start Date** and **End Date** will change. On renewal, the **Asset Status** will change to *Renewed* on the Asset Line Item. New Billing Schedules will be created based on the new **Start Date** and **End Date**.

When you change an asset, you can update values for fields such as the Net Price and Selling Term. Conga Billing, by default assigns the Start Date of the Asset Line Item to the effective date of the change.

Every changed or amended order has a new set of Billing Schedules that Conga Billing creates automatically and these new schedules depend on the Start and End dates that you define for the changed asset line item. When you change an asset, it is critical to align the Bill Cycle Start Date with the Billing Preference of the asset line item.

Let us now understand the impact of each asset action on Billing Schedules and how you can manage this change.

Configure Price Quote (CPQ)

In the following section:

Impact of Asset Actions on Billing Schedules

If you use Conga Billing, you must consider the impact of each asset action, **Renew**, **Change**, **Swap** or **Terminate** has on the Billing and Invoicing of the purchased products. While the impact of asset actions on Billing Schedules are detailed in this guide, you must also consider the following definitions before you make any changes to an asset.

Field	Definition
Period Start Date	The date you want to start billing your customer for this purchase.
Period End Date	The date you want to stop billing your customer for this purchase.
Proration Period Treatment	The way of calculating the proration period. It must be set to Separate Period.
Billing Rule	The rule you defined to either **Bill in Advance** or **Bill in Arrears.**
Billing Plan	**Periodic** - to bill your customer on fixed billing dates that represent custom billing periods that may or may not have a regular frequency. **Milestone** - to distribute the total amount to be billed over multiple billing dates. As each milestone is successfully reached, you can bill your customer either a percentage of the entire cost or a pre-defined amount.

Field	Definition
Billing Day of the Month	If you have configured **Billing Preference** with Account Billing Day of Month, select the day of the month when you want to generate the bill for this account. If you have configured **Billing Cycle Start** = Billing Day of Month, this field cannot be null.
Billing Cycle Start	Select one of the following options: • **Billing Day of the Month** - Select this option to start the billing cycle on the billing day of the month. • **Period Start Date** - Select this option to enable Conga Billing to inherit this value from CPQ. • **Account Billing Day of the Month** - Select this option if you want to define the Billing Preference to use the Billing Day of the Month that you have defined on the Accounts page.
Is Legacy For Billing	Determines whether an asset line is considered as a legacy record for billing purposes. Conga Billing can now support billing for legacy asset line items. Select this checkbox to identify an asset line line item as a legacy asset. When you select this checkbox, CPQ allows you to update the following fields: • Remaining Billable Amount • First Billing Date • Billing Term
Remaining Billable Amount	Determines how much is remaining to be billed for the legacy asset line item after it is migrated to Conga. Whenever the status of a billing schedule changes from *Pending Billing* to *Invoiced* and from *Invoiced* to *Pending Billing*, Conga Billing updates this field.
First Billing Date	Determines the first day of billing an asset line item in Conga. This field is primarily intended to be used for the legacy asset records. However, you can extend it to some regular asset lines records.
Billing Term	Determines the term for which an asset line item must be billed. This field is primarily intended to be used for the legacy asset records. However, you can extend it to some regular asset lines records.

Scroll down to the Billing Schedule section on the Asset Line Item detail page to view the Billing and Usage schedules for that asset.

Billing Schedules for Renewed Assets

To define the **Renewal Date** on the Confirm Renewal page, select from one of the following options.

- **Contract End Date** - if you want to renew the asset on the date the contract expires.
- **Asset End Date** - if you want to renew the asset on the date the asset expires.
- **Farthest End Date** - if you want to choose the farthest end date out of all the selected Asset Line Items and apply this date to all the Asset Line Items.
- **Renewal Date** - use the calendar to define a custom date to renew the asset.

The date you enter here determines the billing period for the Renewed asset. The new Billing Schedules for a renewed asset are in the Pending Billing state by default. Each renewed asset has such Billing schedules that CPQ creates automatically when the asset is activated.

Billing Schedules for Cancelled Assets

When you cancel an asset, the cancellation is effective only after one day's time.

Example 1

You are a customer service representative for a telecommunications company and you cancel a customer's data subscription plan mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you cancel the subscription, you see the following Billing Schedules.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Pending Billing	100.00	
BS2	2/1/2015	2/28/2015	Pending Billing	100.00	
BS3	3/1/2015	3/31/2015	Pending Billing	100.00	
BS4	4/1/2015	4/30/2015	Pending Billing	100.00	

After you cancel the subscription, you see that status of schedules changes.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Pending Billing	100.00	
BS2	2/1/2015	2/28/2015	**Superseded**	100.00	**Yes**
BS5	**2/1/2015**	**2/14/2015**	**Pending Billing**	**50.00**	
BS6	**2/15/2015**	**2/28/2015**	**Cancelled**	**50.00**	
BS3	3/1/2015	3/31/2015	**Cancelled**	100.00	
BS4	4/1/2015	4/30/2015	**Cancelled**	100.00	

In the above example, because the you cancelled the subscription mid-cycle, the original Billing Schedule is superseded and replaced by the following new Billing Schedules.

- BS1 is for the partial period that is still active and has not been billed.
- BS2 is for the partial period that has been cancelled.

Also, because the Billing Schedules for March and April are unbilled their status is set to *Cancelled.*

Example 2

Consider another example where you want to cancel a customer's data subscription plan mid-cycle when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you cancel the subscription, you see the following Billing Schedules.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS2	2/1/2015	2/28/2015	Invoiced	100.00	
BS3	3/1/2015	3/31/2015	Invoiced	100.00	
BS4	4/1/2015	4/30/2015	Pending Invoiced	100.00	
BS5	5/1/2015	5/31/2015	Pending Billing	100.00	

After you cancel the subscription, you see that status of schedules changes.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	
BS2	2/1/2015	2/28/2015	Invoiced	100.00	**Yes**
BS6	**2/15/2015**	**2/28/2015**	**Cancelled**	**50.00**	
BS7	**2/15/2015**	**2/28/2015**	**Pending Billing**	**-50.00**	
BS3	3/1/2015	3/31/2015	Invoiced	100.00	**Yes**
BS8	**3/1/2015**	**3/31/2015**	**Pending Billing**	**-100.00**	
BS4	4/1/2015	4/30/2015	**Cancelled**	100.00	
BS5	5/1/2015	5/31/2015	**Cancelled**	100.00	

In the second example, because you cancelled the subscription mid-cycle, the Billing Schedule for February is invoiced and is augmented with two new Billing Schedules.

- BS1 is for the partial period that was cancelled and is used to record that portion of the invoiced amount that was cancelled.

- BS2 is also for the partial period that was cancelled and it is used to generate an Invoice Line Item in order to reflect the credit for the portion of the invoiced amount that was cancelled.

Because the entire period for March is already *invoiced* it augments a single Billing Schedule that is used to generate an Invoice Line Item that then reflects the credit for the invoiced amount was cancelled. The Billing Schedules for April and March are *unbilled* their status is changed to *Cancelled*.

Billing Schedules for Incremented Assets

As a Sales rep, you can increase the quantity of an asset and bill your customer for the incremented asset as a separate asset. Separate billing schedules are created for the incremented asset.

Use Case: Creating Billing Schedules for an Incremented Asset

Description: This use case describes how billing schedules are created when you increase the quantity of an asset.

Suppose you are a customer service representative for a software company and you change the license quantity for an asset from 1 to 4. Before you change the asset quality, you see the following billing schedules:

Schedule	Period Start	Period End	Status	Fee Amount
BS1	1/1/2019	3/31/2019	Pending Billing	$90.00
BS2	4/1/2019	6/30/2019	Pending Billing	$90.00
BS3	7/1/2019	9/30/2019	Pending Billing	$90.00
BS4	10/1/2019	12/31/2019	Pending Billing	$90.00

To create billing schedules for the incremented assets

1. From an ABO Quote, click **Configure Products.**

2. On the cart page, click **Installed Products.**

3. Select your asset and click Change > Quantity.

4. In the **Change quantity by** field, increase the quantity by 3 by clicking the + icon. The **New Quantity** field displays the updated quantity immediately.

5. Select the appropriate **Cotermination** option. For details on Cotermination option, see Managing Asset Increment with Coterminate Lines.

6. Enter the Start Date and End Date.

7. Click **Go to Pricing**. An asset line item with status Incremented and quantity as 3 is created.

8. Finalize the Cart.

9. Accept the Quote/Proposal and activate the order.

Result:

- A new asset is created with Quantity as 3 and status as Incremented.
- 3 Billing Schedules are created as follows:

Schedule	Period Start	Period End	Status	Fee Amount
BS5	1/1/2019	3/31/2019	Pending Billing	$270.00
BS6	4/1/2019	6/30/2019	Pending Billing	$270.00
BS7	7/1/2019	9/30/2019	Pending Billing	$270.00

Usage Schedules for Cancelled Assets

Example 1

You are a customer service representative for a telecommunications company and you cancel a customer's usage based subscription plan mid-cycle when the status of each Usage Schedule is **Pending Billing**.

Before you cancel the subscription, the asset line item has the following Billing Schedules.

Billing Schedule	Period Start	Period End	Status	Usage Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	88.00	

Billing Schedule	Period Start	Period End	Status	Usage Fee Amount	Superseded
BS2	2/1/2015	2/28/2015	Pending Billing	72.00	
BS3	3/1/2015	3/31/2015	Pending Billing	0.00	
BS4	4/1/2015	4/30/2015	Pending Billing	0.00	

Before you cancel the subscription, the asset line item has the following Usage Schedules.

Usage Schedule	Period Start	Period End	Status	Billing Schedule ID	Quantity	Superseded
US1	1/1/2015	1/31/2015	Pending Billing	BS1	30	
US2	2/1/2015	2/28/2015	Pending Billing	BS2	26	
US3	3/1/2015	3/31/2015	Pending Billing	BS3	0	
US4	4/1/2015	4/30/2015	Pending Billing	BS4	0	

After you cancel the subscription, the status of Billing Schedules change.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	
BS2	2/1/2015	2/28/2015	**Superseded**	72.00	**Yes**
BS5	**2/1/2015**	**2/21/2015**	**Pending Billing**	**52.50**	

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS6	**2/22/2015**	**2/28/2015**	Cancelled	**19.50**	
BS3	3/1/2015	3/31/2015	**Cancelled**	0.00	
BS4	4/1/2015	4/30/2015	**Cancelled**	0.00	

After you cancel the subscription, the status of Usage Schedules change.

Usage Schedule	Period Start	Period End	Status	Billing Schedule ID	Quantity	Superseded
US1	1/1/2015	1/31/2015	Pending Billing	BS1	30	
US2	2/1/2015	2/28/2015	**Superseded**	BS2	26	**Yes**
US5	**2/1/2015**	**2/21/2015**	**Pending Billing**	**BS5**	**17**	
US6	**2/22/2015**	**2/28/2015**	Cancelled	**BS6**	**9**	
US3	3/1/2015	3/31/2015	**Cancelled**	BS3	0	
US4	4/1/2015	4/30/2015	**Cancelled**	BS4	0	

In the above example, because you cancelled the subscription mid-cycle, and Usage Schedule for the February is unbilled, the status is marked as *Superseded* and augmented be with the following Usage Schedules.

- BS1 is for the partial period that is still active and has not been *billed*. It reflects the aggregate amount of the *rated* Usage Inputs that have a date greater than or equal to 2/1 and less than or equal 2/21.

- US1 is for the partial period that is still active and has not been *billed*. It reflects the aggregate quantity of the *rated* Usage Inputs that have a date greater than or equal to 2/1 and less than or equal 2/21.
- BS2 is for the partial period that has been cancelled. It reflects the aggregate amount of the *rated* Usage Inputs that have a date greater than or equal to 2/22 and less than or equal 2/28.
- US2 is for the partial period that you cancelled. It reflects the aggregate quantity of the *rated* Usage Inputs that have a date greater than or equal to 2/22 and less than or equal 2/28.

> ⓘ **Note**
>
> Every usage based asset that you terminate or change, also has Billing Schedules associated with that asset. The Usage Schedules are updated in a manner similar to the Billing Schedules.

Example 2

Consider another example where you want to cancel a customer's subscription plan mid-cycle when the status of some Usage Schedules is **Pending Billing** and others is **Invoiced**.

Before you cancel the subscription, the asset line item has the following Billing Schedules.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	88.00	
BS2	2/1/2015	2/28/2015	Invoiced	72.00	
BS3	3/1/2015	3/31/2015	Invoiced	78.00	
BS4	4/1/2015	4/30/2015	Pending Billing	66.00	

Before you cancel the subscription, the asset line item has the following Usage Schedules.

Usage Schedule	Period Start	Period End	Status	Billing Schedule ID	Quantity	Superseded
US1	1/1/2015	1/31/2015	Pending Billing	BS1	30	
US2	2/1/2015	2/28/2015	Pending Billing	BS2	26	
US3	3/1/2015	3/31/2015	Pending Billing	BS3	31	
US4	4/1/2015	4/30/2015	Pending Billing	BS4	24	

After you cancel the subscription, you see that status of Billing Schedules change.

Billing Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	
BS2	2/1/2015	2/28/2015	Invoiced	72.00	Yes
BS5	2/1/2015	2/28/2015	Pending Billing	-72.00	
BS6	2/1/2015	2/22/2015	Pending Billing	52.50	
BS7	2/22/2015	2/28/2015	Cancelled	19.50	
BS3	3/1/2015	3/31/2015	Invoiced	78.00	Yes
BS8	3/1/2015	3/31/2015	Pending Billing	-78.00	
BS4	4/1/2015	4/30/2015	Cancelled	66.00	

After you cancel the subscription, you see that status of Usage Schedules change.

Usage Schedule	Period Start	Period End	Status	Billing Schedule ID	Quantity	Superseded
US1	1/1/2015	1/31/2015	Pending Billing	BS1	30	
US2	2/1/2015	2/28/2015	**Invoiced**	BS2	26	**Yes**
US5	**2/1/2015**	**2/21/2015**	**Pending Billing**	**BS6**	**17**	
US6	**2/22/2015**	**2/28/2015**	**Cancelled**	**BS7**	**9**	
US3	3/1/2015	3/31/2015	**Invoiced**	BS3	31	**Yes**
US4	4/1/2015	4/30/2015	**Cancelled**	BS4	24	

In the second example, because you cancelled the subscription mid-cycle, the Billing Schedule for February is invoiced and is augmented with two new Billing Schedules.

- BS1 is a credit for the amount that was *invoiced*.
- BS2 is for the partial period that was not cancelled and is used to charge for the portion of the invoiced amount was billed. It reflects the aggregate amount of the *rated* Usage Inputs that have a date greater than or equal to 2/1 and less than or equal 2/21.
- US1 is for the partial period that was not cancelled and is used to record (audit) that portion of the quantity amount was billed. It reflects the aggregate quantity of the *rated* Usage Inputs that have a date greater than or equal to 2/1 and less than or equal 2/21.
- BS3 is for the partial period that was cancelled and the amount the Account will not be charged for. It reflects the aggregate amount of the *rated* Usage Inputs that have a date greater than or equal to 2/22 and less than or equal 2/28.
- US2 is also for the partial period that has been cancelled. It reflects the aggregate quantity of the *rated* Usage Inputs that have a date greater than or equal to 2/22 and less than or equal 2/28.

Because the entire period for March is already *invoiced* it augments a single Billing Schedule that is used to generate an Invoice Line Item that then reflects the credit for the invoiced amount was cancelled. The Billing Schedules for April and March are *unbilled* their status is changed to *Cancelled*.

Changing Billing Schedules When You Decrease the Net Price of Assets

Example 1

You are a customer service representative for a software company and you decrease the Net Price of the customer's software subscription plan mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you decrease the Net Price of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Pending Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Pending Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Pending Billing	100.00	

After you decrease the Net Price of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	**Superseded**	100.00	**Yes**
BS4	**4/1/2015**	**4/15/2015**	**Pending Billing**	**50.00**	
BS5	**4/16/2015**	**4/30/2015**	**Pending Billing**	**25.00**	
BS2	5/1/2015	5/31/2015	**Superseded**	100.00	**Yes**
BS6	**5/1/2015**	**5/31/2015**	**Pending Billing**	**50.00**	

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS3	6/1/2015	6/30/2015	**Superseded**	100.00	**Yes**
BS7	**6/1/2015**	**6/30/2015**	**Pending Billing**	**50.00**	

Because the amendment is *mid-cycle* and the April Billing Schedule is unbilled it will be *superseded* and *augmented* with the following new Billing Schedules.

- BS1 reflects the amount (at the old rate) to charge for the partial period before the amendment date.
- BS2 reflects the decreased amount for the partial period that was amended.

Also, the Billing Schedules for May and June are *unbilled* and are *superseded* and replaced by Billing Schedules that reflect the decreased amount.

Example 2

Consider another example where for a software company and you decrease the Net Price of the customer's software subscription plan mid-cycle when the status of some Billing Schedules is **Pending Billing** and others are **Invoiced**.

Before you decrease the Net Price of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Pending Billing	100.00	

After you decrease the Net Price of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	**Yes**

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS4	4/16/2015	4/30/2015	Pending Billing	-50.00	
BS5	4/16/2015	4/30/2015	Pending Billing	25.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	Yes
BS6	5/1/2015	5/31/2015	Pending Billing	-50.00	
BS3	6/1/2015	6/30/2015	Superseded	100.00	Yes
BS7	6/1/2015	6/30/2015	Pending Billing	50.00	

Because the amendment is *mid-cycle* and the April Billing Schedule is already invoiced it remains as invoiced and is *augmented* with the following new Billing Schedules.

- BS1 reflects the amount (at the old rate) that was invoiced for the partial period at/after the amendment date and will appear as a *credit* when an Invoice is generated.
- BS2 reflects the decreased amount for the partial period that was amended and will appear as a *charge* when an Invoice is generated.

Also, the Billing Schedule for May has been invoiced it will remain as invoiced and will be augmented with one new Billing Schedule. This new Billing Schedule contains the new amount to charge for and appears on the next Invoice generated for that Asset. The Billing Schedule for June is then unbilled (in draft state) it is superseded and replaced by a Billing Schedule that reflects the decreased amount.

Changing Billing Schedules When You Change the Billing Frequency of Assets

Example 1

You are a customer service representative for a software company and you must change the Billing frequency from Quarterly to Monthly for a customer's software subscription plan, mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you change the Billing frequency of the subscription from Quarterly to Monthly, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	7/1/2015	9/30/2015	Invoiced	90.00	
BS2	10/1/2015	12/31/2015	Invoiced	90.00	
BS3	1/1/2016	3/31/2016	Pending Billing	90.00	

After you extend the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	7/1/2015	9/30/2015	Invoiced	90.00	Yes
BS4	8/1/2015	9/30/2015	Pending Billing	-60.00	
BS5	8/1/2015	8/31/2015	Pending Billing	20.00	
BS6	9/1/2015	9/30/2015	Pending Billing	20.00	
BS2	10/1/2015	12/31/2015	Invoiced	90.00	Yes
BS7	10/1/2015	12/31/2015	Pending Billing	-90.00	
BS8	10/1/2015	10/31/2015	Pending Billing	20.00	
BS9	11/1/2015	11/30/2015	Pending Billing	20.00	
BS10	12/1/2015	12/31/2015	Pending Billing	20.00	
BS3	1/1/2016	3/30/2016	Superseded	90.00	Yes
BS11	1/1/2016	1/31/2016	Pending Billing	20.00	
BS12	2/1/2016	2/29/2016	Pending Billing	20.00	
BS13	3/1/2016	3/31/2016	Pending Billing	20.00	
BS14	4/1/2016	4/30/2016	Pending Billing	20.00	

> ⓘ The new *Term* is now 8/1/2015 – 4/30/2016 (9 months) and the new Net Price is 180.00, the Fee amount is 20.00 per month. When you transition from a less frequent Billing Frequency (like quarterly) to more a frequent Billing Frequency (like monthly), a *credit* Billing Schedule is created for each *whole period* Billing Schedule that is invoiced.

Because the billing frequency change is mid-cycle and the July-September Billing Schedule has been invoiced it will remain as invoiced and will be *augmented* with the following new Billing Schedules.

- BS4 reflects the amount for the partial period that is being amended (at the original billing frequency and rate) and will appear as a *credit* when an Invoice is generated.
- BS5 reflects the amount to charge for the first month within the amended partial period of the quarter.
- BS6 reflects the amount to charge for the second month within the amended partial period of the quarter.

Also, the October-December Billing Schedule has been invoiced it will remain as invoiced and will be *augmented* with the following new Billing Schedules.

- BS7 is a credit for the amount that was invoiced.
- BS8 reflects the amount to charge for the first month within the 2nd quarter.
- BS9 reflects the amount to charge for the second month within the 2nd quarter.
- BS10 reflects the amount to charge for the third month within the 2nd quarter.

The January-March Billing Schedule is unbilled and is marked as *Superseded* and augmented with the following new Billing Schedules.

- BS11 reflects the amount to charge for the first month within the 3rd quarter.
- BS12 reflects the amount to charge for the second month within the 3rd quarter.
- BS13 reflects the amount to charge for the third month within the 3rd quarter.

The End Date of the Asset Line Item is extended by 1 month to 4/30/2016 an additional Billing Schedule, BS14 is created to accommodate the extension.

Example 2

Consider another example where you must change the Billing frequency from Monthly to Quarterly, for a customer's software subscription plan, mid-cycle when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you change the Billing frequency of the subscription from Monthly to Quarterly, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	3/1/2015	3/31/2015	Invoiced	100.00	
BS2	4/1/2015	4/30/2015	Invoiced	100.00	
BS3	5/1/2015	5/31/2015	Invoiced	100.00	
BS4	6/1/2015	6/30/2015	Invoiced	100.00	
BS5	7/1/2015	7/31/2015	Invoiced	100.00	
BS6	8/1/2015	8/31/2015	Pending Invoiced	100.00	

After you extend the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	3/1/2015	3/31/2015	Invoiced	100.00	
BS2	4/1/2015	4/30/2015	Invoiced	100.00	**Yes**
BS7	**4/16/2015**	**4/30/2015**	**Pending Billing**	**-50.00**	
BS8	**4/16/2015**	**5/31/2015**	**Pending Billing**	**50.00**	
BS3	5/1/2015	5/31/2015	Invoiced	100.00	**Yes**
BS4	6/1/2015	6/30/2015	Invoiced	100.00	**Yes**
BS9	**6/1/2015**	**8/31/2015**	**Pending Billing**	**100.00**	
BS5	7/1/2015	7/31/2015	Invoiced	100.00	**Yes**
BS6	8/1/2015	8/31/2015	**Superseded**	100.00	**Yes**

> ⓘ The new Term is now 4/16 – 8/31 (4 ½ months) and the new Net Price is 450.00, the Fee amount is 300.00 every quarter. The amendment was performed on 4/16 with the Billing Cycle Start defined as the Period Start Date and the Calendar Cycle Start is June, the 1st period is from 4/16 to 5/31. After this period the quarters is aligned with 6/1 so the next period is from 6/1 to 8/1.

Because the billing frequency change is mid-cycle and the April Billing Schedule has been invoiced it will remain as invoiced and will be augmented with one new Billing Schedule. The new Billing Schedule reflects the amount for the partial period that is being amended (at the original billing frequency and rate) and will appear as a credit when an Invoice is generated.

Because the billing frequency change goes into effect 4/16 and the 16th does not align with the Start Period Date (3/1) a partial period will be created for the 1st new quarter. The Billing Schedule for May has already been invoiced, remains as invoiced, and is superseded by BS8. BS9 is created with a quarterly billing frequency that is from 6/1/2015 - 8/31/2015. It supersedes the 3 Billing Schedules for the months of June, July, and August. The Fee Amount is 300.00 but, because you Invoiced the schedules for June and July, the Fee amount is reduced to 100.00.

Changing Billing Schedules When You Extend the End Date of Assets

Example 1

You are a customer service representative for a software company and you extend the End Date of a customer's software subscription plan mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you extend the End Date of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	200.00	
BS2	5/1/2015	5/31/2015	Invoiced	200.00	
BS3	6/1/2015	6/30/2015	Pending Invoiced	200.00	

After you extend the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	200.00	Yes
BS4	4/16/2015	4/30/2015	Pending Billing	-100.00	
BS5	4/16/2015	4/30/2015	Pending Billing	50.00	
BS2	5/1/2015	5/31/2015	Invoiced	200.00	Yes
BS6	5/1/2015	5/31/2015	Pending Billing	-100.00	
BS3	6/1/2015	6/30/2015	Superseded	200.00	Yes
BS7	6/1/2015	6/30/2015	Pending Billing	100.00	
BS8	7/1/2015	7/31/2015	Pending Billing	100.00	
BS9	8/1/2015	8/31/2015	Pending Billing	100.00	
BS10	9/1/2015	9/15/2015	Pending Billing	50.00	

Because the amendment is *mid-cycle* and the April Billing Schedule has been invoiced it will remain as invoiced and *augmented* with two new Billing Schedules.

- BS1 reflects the overpaid amount for the partial period that was amended and will appear as a *credit* when an Invoice is generated.
- BS2 reflects the new amount for the partial period that was amended and will appear as a *debit* when an Invoice is generated.

Also, the Billing Schedule for May has been invoiced it will be augmented with one new Billing Schedule. This new Billing Schedule contains a credit for the overpaid amount that was invoiced and will appear on the next Invoice generated for the corresponding Asset. The Billing Schedule for June is unbilled it will be superseded and replaced by a Billing Schedule that reflects the new amount. The **End Date** was extended by 2.5 months and 3 new Billing Schedules are created with the appropriate *fee amount*. The last Schedule created is only for half a month.

Example 2

Consider another example where you extend the End Date of the customer's software subscription plan mid-cycle when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you extend the End Date of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Pending Billing	100.00	

After you extend the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	200.00	
BS2	5/1/2015	5/31/2015	Invoiced	200.00	**Yes**
BS4	**5/1/2015**	**5/31/2015**	**Pending Billing**	**-100.00**	
BS3	6/1/2015	6/15/2015	**Superseded**	100.00	**Yes**
BS5	**6/1/2015**	**6/30/2015**	Pending Invoiced	**100.00**	
BS6	**7/1/2015**	**7/31/2015**	Pending Invoiced	**100.00**	

ⓘ **Note**

> The End Date of the Asset Line Item was extended by 1.5 months and Net Price was set to 300.00 for the new Term (5/1/2015 – 7/31/2015). This reduces the Fee from $200 per month to $100.00 per month.

Because the amendment is at the period start and the May Billing Schedule has been invoiced it will remain as invoiced and will be augmented with one new Billing Schedule. The new Billing Schedule reflects the overpaid amount for the whole period that was amended and will appear as a credit when an Invoice is generated. The Billing Schedule for June is unbilled it will be superseded and replaced by a Billing Schedule that reflects the new amount.

Because the original Schedule for June was for a partial period and the End Date of the Asset Line Item is extended by 1.5 months, the replacement Billing Schedule period is extended to a full period. Extending the End date by a period of 1.5 months results in the following changes.
The partial period for June is extended to a full period and the fee amount is updated accordingly. A new Billing Schedule is created for July with the appropriate fee amount.

Changing Billing Schedules When You Increase the Net Price of Assets

Example 1

You are a customer service representative for a software company and you increase the Net Price of the customer's software subscription plan mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you increase the Net Price of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	3/1/2015	3/31/2015	Pending Invoiced	100.00	
BS2	4/1/2015	4/30/2015	Pending Invoiced	100.00	
BS3	5/1/2015	5/31/2015	Pending Billing	100.00	
BS4	6/1/2015	6/30/2015	Pending Billing	100.00	

After you increase the Net Price of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	3/1/2015	3/31/2015	Pending Invoiced	100.00	
BS2	4/1/2015	4/30/2015	**Superseded**	100.00	**Yes**
BS5	**4/1/2015**	**4/15/2015**	**Pending Billing**	**50.00**	
BS6	**4/16/2015**	**4/30/2015**	**Pending Billing**	**100.00**	
BS3	5/1/2015	5/31/2015	**Superseded**	100.00	**Yes**
BS7	**5/1/2015**	**5/31/2015**	**Pending Billing**	**200.00**	
BS4	6/1/2015	6/30/2015	**Superseded**	100.00	**Yes**
BS8	**6/1/2015**	**6/30/2015**	**Pending Billing**	**200.00**	

Because the amendment is *mid-cycle* and the April Billing Schedule is unbilled it will be *superseded* and *augmented* with the following new Billing Schedules.

- BS1 reflects the amount (at the old rate) to charge for the partial period before the amendment date.
- BS2 reflects the increased amount for the partial period that was amended.

Also, the Billing Schedules for May and June are *unbilled* and are *superseded* and replaced by Billing Schedules that reflect the increased amount.

Example 2

Consider another example where for a software company and you increase the Net Price of the customer's software subscription plan mid-cycle when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you increase the Net Price of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Pending Invoiced	100.00	

After you increase the Net Price of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	Yes
BS4	4/16/2015	4/30/2015	Pending Billing	-50.00	
BS5	4/16/2015	4/30/2015	Pending Billing	100.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	Yes
BS6	5/1/2015	5/31/2015	Pending Billing	100.00	
BS3	6/1/2015	6/30/2015	Superseded	100.00	Yes
BS7	6/1/2015	6/30/2015	Pending Billing	200.00	

Because the amendment is *mid-cycle* and the April Billing Schedule is already invoiced it remains as invoiced and is *augmented* with the following new Billing Schedules.

- BS1 reflects the amount (at the old rate) that was invoiced for the partial period at/after the amendment date and will appear as a *credit* when an Invoice is generated.
- BS2 reflects the increased amount for the partial period that was amended and will appear as a *charge* when an Invoice is generated.

Also, the Billing Schedule for May has been invoiced it will remain as invoiced and will be augmented with one new Billing Schedule. This new Billing Schedule contains the new amount to charge for and appears on the next Invoice generated for that Asset. The Billing Schedule for June is then unbilled (in draft state) it is superseded and replaced by a Billing Schedule that reflects the increased amount.

Changing Billing Schedules When You Reduce the End Date of Assets

Example 1

You are a customer service representative for a software company and you shorten the End Date of a customer's software subscription plan mid-cycle when the status of each Billing Schedule is **Pending Billing**.

Before you shorten the End Date of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Pending Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Pending Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Pending Invoiced	100.00	
BS4	7/1/2015	7/31/2015	Pending Billing	100.00	
BS5	8/1/2015	8/31/2015	Pending Billing	100.00	

After you shorten the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	**Superseded**	100.00	**Yes**
BS6	**4/1/2015**	**4/15/2015**	**Pending Billing**	**50.00**	
BS7	**4/16/2015**	**4/30/2015**	**Pending Billing**	**112.50**	
BS2	5/1/2015	5/31/2015	**Superseded**	100.00	**Yes**

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS8	5/1/2015	5/31/2015	Pending Billing	225.00	
BS3	6/1/2015	6/30/2015	Superseded	100.00	Yes
BS9	6/1/2015	6/15/2015	Pending Billing	112.50	
BS10	6/15/2015	6/30/2015	Cancelled	50.00	
BS4	7/1/2015	7/31/2015	Cancelled	100.00	
BS5	8/1/2015	8/31/2015	Cancelled	100.00	

Because the **End Date** of the Asset Line Item is reduced by 2.5 months and the **Net Price** is set to 450.00, the monthly fee for the amended Term(4/15 – 6/15) is increased from 100 per month to 225 per month.

Because the amendment is mid-cycle and the April Billing Schedule is unbilled, it is then superseded and replaced with two new Billing Schedules.

- BS1 reflects the amount at the old rate for the partial period prior to the amendment date and is calculated as a *debit* when an Invoice is generated.
- BS2 reflects the new amount for the partial period that was amended and is calculated as a *debit* when an Invoice is generated.

Also, the Billing Schedule for May is unbilled and is superseded with one new Billing Schedule. This new Billing Schedule reflects the new monthly rate and is calculated in the next Invoice that you generate for the corresponding Asset. The Billing Schedule for June is unbilled and its period is shortened, it is superseded and replaced with the following new Billing Schedules.

- The 1st new Billing Schedule reflects the new amount for the partial period that was amended and is calculated as a *debit* when you generate an Invoice.
- The period in June is shortened and the 2nd new Billing Schedule reflects the amount for the partial period of June that is *dropped* because the End Date is shortened.

The Billing Schedules for July and August are unbilled and they are *dropped* because the End Date is shortened they are marked as *Cancelled*.

Example 2

Consider another example where you shorten the **End Date** of the customer's software subscription plan, mid-cycle when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you shorten the **End Date** of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	
BS3	6/1/2015	6/30/2015	Invoiced	100.00	
BS4	7/1/2015	7/31/2015	Invoiced	100.00	
BS5	8/1/2015	8/31/2015	Pending Invoiced	100.00	

After you shorten the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	4/1/2015	4/30/2015	Invoiced	100.00	Yes
BS6	4/16/2015	4/30/2015	Pending Billing	-50.00	
BS7	4/16/2015	4/30/2015	Pending Billing	112.50	
BS2	5/1/2015	5/31/2015	Invoiced	100.00	Yes
BS8	5/1/2015	5/31/2015	Pending Billing	125.00	
BS3	6/1/2015	6/30/2015	Invoiced	100.00	Yes
BS9	6/1/2015	6/15/2015	Pending Billing	-50.00	

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS10	6/1/2015	6/15/2015	Pending Billing	112.50	
BS11	6/15/2015	6/30/2015	Pending Billing	-50.00	
BS4	7/1/2015	7/31/2015	Invoiced	100.00	Yes
BS12	7/1/2015	7/31/2015	Pending Billing	-100.00	
BS5	8/1/2015	8/31/2015	Cancelled	100.00	

> ⓘ **Note**
>
> The End Date of the Asset Line Item is reduced by 2.5 months and the Net Price is set to 450.00, the monthly fee for the amended Term(4/15 – 6/15) is increased from 100 per month to 225 per month.

Because the amendment is mid-cycle and the April Billing Schedule has been invoiced it will remain as invoiced and will be augmented with the following new Billing Schedules.

- BS1 reflects the amount already paid for the partial period that was amended and will appear as a *credit* when an Invoice is generated.
- BS2 reflects the new amount for the partial period that was amended and will appear as a *debit* when an Invoice is generated.

Because the period in June is shortened, the 3rd new Billing Schedule reflects a credit for the partial period of June after the End Date is shortened.

Example 3

Consider another example where you shorten the **End Date** make it the same as the **Start Date** of the customer's software subscription plan mid-cycle to the same as the **Start Date**, when the status of some Billing Schedules is **Pending Billing** and others is **Invoiced**.

Before you shorten the **End Date** and make it the same as the **Start Date** of the subscription, you see the following Billing Schedules.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS2	2/1/2015	2/28/2015	Invoiced	100.00	
BS3	3/1/2015	3/31/2015	Invoiced	100.00	
BS4	4/1/2015	4/30/2015	Pending Invoiced	100.00	

After you shorten the End Date of the subscription, the number of and the status of each Billing Schedule changes.

Schedule	Period Start	Period End	Status	Fee Amount	Superseded
BS1	1/1/2015	1/31/2015	Invoiced	100.00	
BS2	2/1/2015	2/28/2015	Invoiced	100.00	Yes
BS5	2/8/2015	2/21/2015	Pending Billing	-50.00	
BS6	2/8/2015	2/21/2015	Pending Billing	80.00	
BS7	2/22/2015	2/28/2015	Pending Billing	-25.00	
BS3	3/1/2015	3/31/2015	Invoiced	100.00	Yes
BS8	3/1/2015	3/31/2015	Pending Billing	-100.00	
BS4	4/1/2015	4/30/2015	Cancelled	100.00	

The new Term in this scenario is from 2/8/2015 to 2/21/2015 and the Net Price will be 80.00.

Because the amendment is *mid-cycle* and the February Billing Schedule has been invoiced it will remain as invoiced and because the *end date* of the Asset has been reduced to February it will be *augmented* with the following new Billing Schedules.

- BS1 reflects the amount already paid for the partial period that was amended and will appear as a *credit* when an Invoice is generated.
- BS2 reflects the new amount for the partial period that was amended and will appear as a *debit* when an Invoice is generated.

- BS3 is to account for the end of the period that is being *dropped* and will appear as a *credit* when an Invoice is generated.

The Billing Schedule for March is invoiced and is *removed* because the End Date is shortened.

A new Billing Schedule is created to credit the amount that was already invoiced. Because the End Date is shortened and the period for August is unbilled, the Billing Schedule is marked as *Cancelled.*

Managing Services

The Service CPQ feature caters to customer requirements that are related to services for existing assets (equipment purchased from Conga). As a Sales Representative, you can quote an asset that is sold to customers and associate a service product with assets. You have the visibility to the end-to-end cycle through the following pages for service management:

- Installed Products page
- Service Catalog page
- Service Config page
- Service Cart page

This section covers the following topics:

- Associating Services with Assets
- Working with the Service Catalog
- Configuring Service Products
- Working with the Service Cart
- Splitting the Related Line Items from Services
- Modifying the Association of Assets with Services by Launching the Installed Products Page Directly
- Use Case: Bundle to Bundle
- Use Case: Bundle to Components
- Use Case: Bundle to Bundle and Components
- Use Case: A Product with Parent and Child Price Lists

Associating Services with Assets

Prerequisites

- You must have existing assets.
- Your administrator must have completed certain configurations. For more information on these configurations, see Configuring Service CPQ.

To associate a service with an asset

1. Create a quote.

2. Navigate to the Installed Products page.

3. On the **Purchased Products** tab, select the required assets (standalone, bundle, or options).

> ⓘ **Validating Service Assets based on Criteria**
>
> You can select multiple equipment assets on the **Purchased Products** tab. Based on the selection criteria of equipment assets, CPQ displays validation messages to ensure that the right set of equipment is selected to associate a service. For example, you can select assets based on the location criterion and then proceed to associate a service.

4. Click one of the following options:
   - Click **Relate**. The Service Catalog is displayed. For more information, see Working with the Service Catalog.
   - Click **Relate Component**. The Relate Component pop-up is displayed. Select the required options of the asset bundle and click **Relate**. The Service Catalog is displayed.

   > ⓘ **Relate or Relate Component**
   > - Use the **Relate** flow to associate services to a standalone or bundle equipment. The Related Line Item for the services on the Cart display only the standalone or bundle equipment that you selected here on the **Purchased Products** tab.
   > - Use the **Relate Component** flow to associate services to components of a bundle equipment. The Related Line Item for the services on the Cart display the components of the bundle that you selected here on the **Purchased Products** tab.

5. Select the required services:
   - Click **Add to Cart**. The Service Cart is displayed. For more information, see Working with the Service Cart.
   - Click **Configure**. The Config page is displayed.
       i. Configure the attributes or options.
       ii. Click **Go to Pricing**. The Service Cart is displayed.

6. View the Service Cart. You can see the service line items and the related line items with weightage details for each asset.

7. Finalize the cart.

8. After your customer accepts the quote, an order is generated.

9. After you activate the order, new service assets are generated. The service assets are active and visible on the account.

10. Navigate to the Installed products page, select an equipment asset or service asset on the **Purchased Products** tab, and then click the **Related Purchases** tab. The association between equipment asset and service asset is displayed.
    - If you selected an equipment asset on the **Purchased Products** tab, the associated service asset is displayed on the **Related Purchases** tab.
    - If you selected a service asset on the **Purchased Products** tab, the associated equipment asset is displayed on the **Related Purchases** tab.

Working with the Service Catalog

The Service Catalog works similar to the Product Catalog. The Service Catalog displays all products for which your administrator has set **Product Type** as *Service*. The services on the Service Catalog are displayed based on how your administrator has configured the service categories into offering, service categories, service bundles, standalone services and option services. You can see and configure the service offerings (entitlements) that are applicable to your assets. CPQ disables the non-eligible entitlements for selection on the Service Catalog. If you select an entitlement that is not applicable to any asset, CPQ displays an error message.

> (i) If your administrator has configured constraint rules for services, the Service Catalog displays only the eligible service products that you can associate with the selected assets. When you relate an asset bundle, the eligibility rule is triggered at the option and bundle level. Based on the eligible purchases for the option of a service, you can do the following:
> - Sell services for a bundle or option
> - Select the options for which you want to add a service coverage

CPQ supports the catalog actions on the Service Catalog also. For example, searching for services, configuring service bundles, adding services to the cart, and changing the quantity of services. The Service Catalog also displays product description, product code, and charge types beside services. However, CPQ does not support Favorites in the Service CPQ flow.

You can perform the following actions on the Service Catalog:

1. Search for a particular service. For more information, see Searching Products from the Catalog.
2. Select a service and click **Add to Cart** to add it directly to the Cart. For more information, see Working with the Service Cart.

3. Click **Configure** next to a service that has attributes or options associated with it. The Config page is displayed. For more information, see Configuring Service Products.

4. Click the **Selected Assets** link to view the assets and their corresponding details. The Selected Assets pop-up displays the assets that you selected on the **Purchased Products** tab on the Installed Products page.

5. Click **Update** if you navigated to the Installed Products page from the Service Cart and modified asset selection. For more information, see Working with the Service Cart. After the update is complete, click the **View Cart** in the Mini-Cart to go to the Service Cart.

> ❗ Before the progress bar is loaded completely, do not to click **Update** on the Service Catalog. If you click **Update** before the progress bar loading is complete, CPQ allows you to add a related line item, but CPQ does not redistribute the **Weightage Percentage** and **Weightage Amount** field values on the Cart when you view **Related Line Items**.

Configuring Service Products

The Service Configuration page works similar to Product Configuration page. For more information, see Configuring Products from the Catalog. After you navigate from the Service Catalog to the Service Config page, you can perform the following actions:

1. Click the **Selected Assets** link to view the assets and their corresponding details. The Selected Assets pop-up displays the assets that you selected on the Installed Products page.

2. Configure attributes for your service from the **Product Attributes** tab if attributes are associated to your service product.

3. Select and configure options for your bundle service from the **Product Options** tab if options are associated to your service product.

   a. Click the ▦ icon next to the selected option. The Manage *<Service_Option_Name>* page with the assets you selected on the Installed Products page is displayed.

   b. Select required options of the asset bundle to which you want to associate the service option and click **Save**. You are navigated back to the Config page.

   > ⓘ After you select a service option, the ▦ icon appears after the pricing is complete. This Manage *<Service_Option_Name>* page helps you to see which assets are related to the service option.

- If you selected a standalone asset on the Installed Products page, only that asset is displayed on the Manage *<Service_Option_Name>* page. If you clear the selected asset, CPQ displays an error message. Click **Cancel** to close the page because you cannot perform any other action.
- If you selected more standalone assets on the Installed Products page, those assets are displayed on the Manage *<Service_Option_Name>* page. Clear some selected assets to which you do not want to associate the service option and click **Save**.
- If you selected a bundle asset on the Installed Products page, the asset bundle and all options of the bundle asset are displayed on the Manage *<Service_Option_Name>* page. Select required options of the asset bundle to which you want to associate the service option and click **Save**.
- If you selected some options of the bundle asset on the Installed Products page (Relate Component scenario), only those selected options are displayed on the Manage *<Service_Option_Name>* page. Clear some selected options of the asset bundle to which you do not want to associate the service option and click **Save**.

c. Click the ⬇ icon next to the selected option under **Itemized Options** to view the assets and their corresponding details. The Selected Assets pop-up displays the assets that you selected on the Installed Products page.

4. Click **Go to Pricing**. CPQ calculates the price of products on the Config page and navigates you to the Service Cart page. For more information, see Working with the Service Cart.

> ⓘ If your administrator has enabled the **Bypass Shopping Cart** setting, the **Go to Pricing** button is hidden on the Config page. However, you can still finalize the quote using the Mini-Cart.

Working with the Service Cart

The Service Cart works similar to Product Cart. For more information, see Working with the Cart. CPQ supports the cart grid actions on the Service Cart as well. After you navigate from the Service Catalog or the Service Config page to the Service Cart page, you can perform the following actions:

1. Modify the related line items that are associated with the service:

   - Hover the mouse on the service bundle name, click the more icon (⋮) and select **Related Line Items**. The asset bundle that you selected on the Installed Products page is displayed.

   - Click the ▸ icon to expand the service bundle and hover the mouse on a service option name, click the more icon (⋮) and select **Related Line Items**. The asset component(s) that you selected on the Installed Products page is displayed.

2. Click **Add/Remove** if you want to change the assets associated to a specific line item only (service bundle or service option). The Installed Products page is displayed.
   a. Remove the selected asset if you do not want to associate it with the current service.
   b. Add more or different assets if required and click **Relate**. The Service Catalog is displayed.
   c. Click **Update** to confirm the service product association with the new asset.
   d. Click **View Cart** on the Mini-Cart. The Service Cart is displayed.

3. Click **Add/Remove at all levels** if you want to change the assets associated to the service bundle and all service options together. The Installed Products page is displayed.
   a. Remove the selected assets if you do not want to associate them with the current services.
   b. Add more or different assets if required and click **Relate**. The Service Catalog is displayed.
   c. Click **Update** to confirm the service product association with the new asset.
   d. Click **View Cart** on the Mini-Cart. The Service Cart is displayed.

   > ⓘ When you use **Add/Remove** and **Add/Remove at all levels** buttons to navigate to the Service Catalog, filters defined in Search Filter (CPQ) are not applied.

4. Distribute the weightage of the service among related line items:
   a. From the **Weightage Type** drop-down, select *Percentage* or *Amount*.
   b. In the **Weightage Amount** field, enter a value.
      - If the Weightage Type = Percentage, the total weightage must be equal to 100.
      - If the Weightage Type = Amount, the total weightage must be equal to the net price of the line item.
   c. Click **Save**.

> ⓘ The weightage amount or percentage value drives the service allocation for the customer. For example, you can set 60:40 service allocation amongst two service products depending upon service implementation needs.
>
> If your administrator has set the global flag **isTriggerInitiatedUpdate** to *True*, CPQ skips the trigger logic, which allocates the net price of the service line item to all associated related line item records based on the **Weightage Type** and **Weightage Amount** fields. For more information, see Configuring the Execution of the RelatedLineItem Trigger.

5. Click **Split** to clone a configured service line. For more information, see Splitting the Related Line Items from Services.
6. Finalize the cart.

Splitting the Related Line Items from Services

The Split feature allows you to clone a service with some or all related line items using in the Service Cart. The Split feature is available only at the service bundle level. You can clone the service to discount or negotiate various equipment items differently. This feature splits the related line items based on the split criteria defined by the administrator.

In many scenarios, Sales Representatives belonging to a specific region have identical needs for negotiation. However, there may be scenarios where the Sales Representatives may not want to break the service line.

Prerequisites

The split criteria must be defined in the **Service Line Split Criteria** setting in Config System Properties. You can define split criteria that apply globally or create split criteria for a specific flow. In case the split criteria is defined for a specific flow, the **Split** button is not displayed in other flows. For more information, see Defining Service Line Split Criteria.

To split related line items from services

Perform the following steps to split a related line item from a service:

1. On the Service Cart page, hover the mouse on the service bundle, click the more icon (⋮) and select **Related Line Items**.

2. Click **Split**.

3. Select one or more criteria and click **Split**.

After you click **Split**, the service is cloned. The related line items are removed from the original service and associated to the cloned service based on the split criteria. The price is recalculated based on the related line items associated with the service.

Modifying the Association of Assets with Services by Launching the Installed Products Page Directly

You can launch the Installed Products page directly for the Add/Remove flow (Service CPQ), where you can modify the association of assets with services.

Prerequisite

Your administrator must have configured a custom button to launch the Installed Products page directly from the custom cart page. For example, your administrator has used servicePLN=2 on the custom button. For more information, see Configuring a Custom Button to Launch the Installed Products Page Directly for the Add/Remove Flow.

To modify the association of assets with services

1. Create a quote.
2. Click **Configure Products**. The Catalog page is displayed.
3. Click **Installed Products**. The Installed Products page is displayed.
4. Select the required assets that you want to associate with service products.
   Example:
   - Standalone Asset 1
   - Standalone Asset 2
5. Click **Relate**. The Service Catalog is displayed.
6. Click **Add to Cart** for the service products that you want to associate with the selected assets.
   Example:
   - Service Product 1
   - Service Product 2
7. On the Mini-Cart, **View Cart**. The Service Cart page is displayed.

8. Finalize the cart (or save it). CPQ finalizes the cart and navigates you back to the quote.
9. Click the custom button (where the administrator has used the service parameter, servicePLN=2). CPQ launches the Installed Products page directly with Standalone Asset 1 and Standalone Asset 2 selected by default. You can see the service parameter in the URL now. On the Mini-Cart, you can see Service Product 1 Service Product 2.
10. Modify the association of assets with Service Product 2:
    - Add more assets.
    - Remove the assets you will no longer associate with the service.
11. Click **Relate**. The Service Catalog with the service product that you passed in the parameter is displayed. In this case, Service Product 2 is displayed.
12. Click **Update**.

Use Case: Bundle to Bundle

Description

This use case describes how to associate a service bundle with an asset bundle. The following table lists a sample asset bundle and a service bundle.

Asset Bundle 1	Service Bundle 1
Asset Bundle Option 1	Service Bundle Option 1
Asset Bundle Option 2	Service Bundle Option 2
Asset Bundle Option 3	Service Bundle Option 3
Asset Bundle Option 4	Service Bundle Option 4

Association

1. Create a quote.
2. Navigate to the Installed Products page.
3. On the **Purchased Products** tab, select **Asset Bundle 1**.
4. Click **Relate**. The Service Catalog is displayed.
5. Select **Service Bundle 1** and click **Configure**. The Config page is displayed.
6. Click **Go to Pricing**. The Service Cart is displayed.
7. Hover the mouse on **Service Bundle 1**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle 1**.

8. Finalize the cart.

9. After your customer accepts the quote, an order is generated.

10. After you activate the order, new service asset **Service Bundle 1** is generated. The service asset is active and visible on the account.

11. Navigate to the Installed products page. You can see the association between the service asset and equipment asset on the **Purchased Products** tab and the **Related Purchases** tab.

Use Case: Bundle to Components

Description

This use case describes how to associate a service bundle with components of an asset bundle. The following table lists a sample asset bundle and a service bundle.

Asset Bundle 1	Service Bundle 1
Asset Bundle Option 1	Service Bundle Option 1
Asset Bundle Option 2	Service Bundle Option 2
Asset Bundle Option 3	Service Bundle Option 3
Asset Bundle Option 4	Service Bundle Option 4

Association

1. Create a quote.
2. Navigate to the Installed Products page.
3. On the **Purchased Products** tab, select **Asset Bundle 1**.
4. On the **Relate** drop-down, click **Relate Component**. The Relate Component pop-up is displayed.
5. Select **Asset Bundle Option 1** and **Asset Bundle Option 2**, and click **Relate**. The Service Catalog is displayed.
6. Select **Service Bundle 1** and click **Configure**. The Config page is displayed.
7. Select **Service Bundle Option 1** and **Service Bundle Option 2**.
8. Click **Go to Pricing**. The Service Cart is displayed.
9. Hover the mouse on **Service Bundle 1**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle Option 1** and **Asset Bundle Option 2**.

10. Click the ![icon] icon to expand **Service Bundle 1** and hover the mouse on **Service Bundle Option 1**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle Option 1** and **Asset Bundle Option 2**.

11. Click the ![icon] icon to expand **Service Bundle 1** and hover the mouse on **Service Bundle Option 2**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle Option 1** and **Asset Bundle Option 2**.

12. Finalize the cart.

13. After your customer accepts the quote, an order is generated.

14. After you activate the order, new service assets **Service Bundle 1**, **Service Bundle Option 1**, and **Service Bundle Option 2** are generated. The service assets are active and visible on the account.

15. Navigate to the Installed products page. You can see the association between the service assets and equipment assets on the **Purchased Products** tab and the **Related Purchases** tab.

Use Case: Bundle to Bundle and Components

Description

This use case describes how to associate a service bundle with an asset bundle and its components.

> ⓘ You can associate a service bundle or a service option with either an equipment asset bundle or an equipment asset option at a time, but not with both.

The following table lists a sample asset bundle and a service bundle.

Asset Bundle 1	Service Bundle 1
Asset Bundle Option 1	Service Bundle Option 1
Asset Bundle Option 2	Service Bundle Option 2
Asset Bundle Option 3	Service Bundle Option 3
Asset Bundle Option 4	Service Bundle Option 4

Association

1. Create a quote.

2. Navigate to the Installed Products page.

3. On the **Purchased Products** tab, select **Asset Bundle 1**.

4. Click **Relate**. The Service Catalog is displayed.

5. Select **Service Bundle 1** and click **Configure**. The Config page is displayed.

6. Select **Service Bundle Option 1**.

   a. Click the ▤ icon next to it. The Manage Service Bundle Option 1 page with the following assets is displayed.

      - Asset Bundle 1
      - Asset Bundle Option 1
      - Asset Bundle Option 2
      - Asset Bundle Option 3
      - Asset Bundle Option 4

   b. Click the checkbox next to **Asset Bundle 1** until you clear the selection.

   c. Select **Asset Bundle Option 1** and click **Save**. The Config page is displayed.

7. Select **Service Bundle Option 2**.

   a. Click the ▤ icon next to it. The Manage Service Bundle Option 2 page with the following assets is displayed.

      - Asset Bundle 1
      - Asset Bundle Option 1
      - Asset Bundle Option 2
      - Asset Bundle Option 3
      - Asset Bundle Option 4

   b. Click the checkbox next to **Asset Bundle 1** until you clear the selection.

   c. Select **Asset Bundle Option 2** and click **Save**. The Config page is displayed.

8. Click **Go to Pricing**. The Service Cart is displayed.

9. Hover the mouse on **Service Bundle 1**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle 1**.

10. Click the ▶ icon to expand **Service Bundle 1** and hover the mouse on **Service Bundle Option 1**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle Option 1**.

11. Click the ▶ icon to expand **Service Bundle 1** and hover the mouse on **Service Bundle Option 2**, click the more icon (⋮) and select **Related Line Items**. You can see **Asset Bundle Option 2**.

12. Finalize the cart.

13. After your customer accepts the quote, an order is generated.

14. After you activate the order, new service asset **Service Bundle 1** with service options is generated. The service asset is active and visible on the account.

15. Navigate to the Installed products page. You can see the association between the service asset and equipment asset on the **Purchased Products** tab and the **Related Purchases** tab.

Use Case: A Product with Parent and Child Price Lists

This use case describes how the Catalog page and the Cart page show different price lists when a product is associated with both parent and child price lists.

1. Create a price list ABC Group (this is the parent price list).
2. Create another price list ABC Group North (this is a child price list where **Based on Price List** = ABC Group).
3. Create a product ABC P-1000 (this product is associated with both parent and child price lists).
4. Create a quote with the child price list (ABC Group North).
5. Navigate to the Catalog page and search for the product ABC P-1000. The price of this product on the Catalog page is derived from the parent price list ABC Group.

> ⓘ Though you have created the quote with the child price list, the Product Configuration has the parent price list. Therefore, CPQ is deriving the price of the product from the parent price list. After the pricing engine is executed, CPQ derives the correct price for the product on the Cart page, which is from the child price list.

Glossary

This section covers the following topics:

- Approval Stages
- Proposal Actions
- New Related Lists

Approval Stages

This section describes the purpose of the different Approval Stages.

Field Value	Description
Draft	New Quote Created.
Approval Required	Changes to the Quote or Quote Line Items have triggered a need for approval.
In Review	Quote is in the process of being Approved or Denied.
Approved	Quote has been approved by management.
Generated	Quote document has been generated.
Presented	Quote document was presented to the end customer, either via email or manually.
Accepted	Quote was accepted by the end customer.
Denied	Quote has been denied by management.

Proposal Actions

This section describes the actions available at various stages of the proposal and their significance.

> ⓘ These actions are fields and they are configurable by the System Administrator per your business process requirements.

Configure Products

Action	
Description	Starts a new configuration process for the Quote, or reconfigure an existing set of products on the Quote.
Availability	If approval stage is *Draft*.

Generate Proposal

Action	
Description	Generates a Proposal document and attaches it to the Quote/Proposal record.
Availability	Always Available if Ready to Generate is set to *true*.

Present Proposal

Action	
Description	Presents the attached document to the Quote to the end customer through an email.
Availability	Always Available if Ready to Present is set to *true*.

Accept Proposal

Action	
Description	Accept refers to an end customer *Accepting* the final proposal. This button synchronizes all Summary lines with the Opportunity Products for the Related Opportunity.
Availability	If approval stage is *Presented*.

Make Primary

Action	
Description	Sets this Quote to primary and all other Quotes for the Opportunity non Primary. Also enables the Synchronize with Opportunity button.
Availability	If Primary flag is *false*.

Synchronize with Opportunity

Action	
Description	Synchronizes the finalized quote with the Opportunity, each time the cart is Finalized. If you are using automatic synchronization, you should remove this from the page layout.
Availability	If Primary flag is *true*.

Create Agreement with Line Items

Action	
Description	Once accepted, the final step is to create the contract.
Availability	If approval stage is *Accepted*.

New Related Lists

This section describes the various related lists enabled after the draft proposal record is created.

Name	Description
Actions	Lists the various actions you can execute for this stage of the quoting process. A list of actions with the description of their function is available in Proposal Actions.
Line Items	Contains the detailed line items (bundles, options, and standalone) of a finalized configuration. This corresponds to the Detail tab in configuration.
Summary	Contains the summary view (standalone and bundles) of a finalized configuration. This corresponds to the Summary tab in configuration.
Summary Groups	Contains the totals for the finalized configuration according to the product hierarchy including a Grand Total.
Notes & Attachments	Enables you to attach any reference document or file relevant to a quote/proposal. The proposal document when generated from the template is stored by the application in this section.
Open Activities	Enables you to create and assign new task corresponding to a quote.
Approval History	Initiate and track approvals corresponding to the quote. Note: Approvals can be initiated only if the corresponding approval processes have been set up by the System Administrator.
Activity History	Lists an Audit history of significant changes during the life of the quote.