



# **Siebel Order Management Guide Addendum for Communications**

Version 8.1 Rev. B  
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## Index

# 1

## What's New in This Release

### What's New in Siebel Order Management Guide Addendum for Communications, Version 8.1 Rev. B

Table 1 lists changes in this version of the documentation to support release 8.1 of the software.

Table 1. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1 Rev. B

Topic	Description
<a href="#">"Processing a Quote Through the Order-to-Cash Process Integration Pack" on page 25</a>	New topic. Functionality is added to support custom configuration of quote lines and processing of quotes through the Order-to-Cash Process Integration Pack (PIP).
<a href="#">About Synchronizing Product Attributes, Product Classes, Products, and Promotions on page 27</a>	New topic. Functionality has been added to synchronize product attributes, product classes, products, and promotions with Oracle® Product Information Management Data Hub.
<a href="#">Viewing Synchronized Extensible Product Fields on page 35</a>	New topic. Functionality has been added to append extensible fields to product records from Oracle Product Information Management Data Hub.
<a href="#">"Modifying the Order Priority Mapping" on page 40</a>	New topic. Changing the priority of an order transmitted to the Java Message Service (JMS) queue is supported.
<a href="#">"Processing a Sales Order Through Oracle Application Integration Architecture Integration" on page 40</a>	Modified topic. Functionality has been added to support custom configuration of order lines, and submission of orders for technical service qualification through Oracle® Application Integration Architecture integration. Fields have also been added to support order revisions, order priority, and order hierarchy.
<a href="#">"Viewing Shipping Details for Orders and Order Lines" on page 45</a>	New topic. Functionality has been added to display back-office information about order and line item shipping in Siebel CRM.
<a href="#">"Building a Hierarchy of Orders" on page 46</a>	New topic. Functionality has been added to build a hierarchy of orders by pointing an order to another order as a parent order.
<a href="#">"Canceling an Order and Order Lines" on page 50</a>	New topic. Functionality has been added to cancel orders and order line items in Siebel CRM and submit the cancellations to the back-office application for processing.
<a href="#">"Submitting an Order for Technical Service Qualification" on page 51</a>	New topic. Functionality has been added to support the submission of orders for technical service qualification through Oracle Application Integration Architecture integration.

Table 1. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1 Rev. B

Topic	Description
<a href="#">"Workflows to Edit Quote Line Items" on page 93</a>	Modified topic. Workflows to allow a user to edit the line items of quotes have been added or changed.
<a href="#">"Workflows to Edit Order Line Items" on page 97</a>	Modified topic. Workflows to allow a user to edit the line items of orders have been added or changed.
<a href="#">"Workflows to Submit an Order" on page 100</a>	Modified topic. Workflows to allow a user to submit an order have been added or changed.
<a href="#">"Workflows to Suspend or Resume Service Items" on page 118</a>	Modified topic. Workflows to allow a user to suspend or resume service items have been added or changed.
<a href="#">"Workflows to Process an Order" on page 183</a>	Modified topic. Workflows to allow a user to process an order have been added or changed.
<a href="#">"Workflows to Cancel an Order" on page 198</a>	Modified topic. Workflows to support order cancellations have been added or changed.
<a href="#">"Workflows to Process a Quote" on page 202</a>	New topic. Workflows to allow a user to process a quote have been added or changed.
Chapter 11, <a href="#">"Web Services Reference"</a>	<p>Modified chapter.</p> <ul style="list-style-type: none"> <li>■ Web services have been added to support the integration of Siebel Order Management for Industry Applications with external applications.</li> <li>■ Web service descriptions that appeared in the previous edition of this guide have been moved to <i>Siebel CRM Web Services Reference</i>.</li> </ul>

Table 2 lists changes in the previous version of the documentation to support release 8.1 of the software.

Table 2. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1 Rev. A

Topic	Description
<a href="#">"Setting Up a Product for Oracle Application Integration Architecture Integration" on page 36</a>	New topic. Fields have been added in support of product discounting and fulfillment through Oracle Application Integration Architecture integration.
<a href="#">"About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management" on page 38</a>	New topic. Functionality has been added to support the processing of discounts through Oracle Application Integration Architecture integration.

Table 2. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1 Rev. A

Topic	Description
<a href="#">"Processing a Sales Order Through Oracle Application Integration Architecture Integration" on page 40</a>	New topic. New fields are added in support of sales order processing through Oracle Application Integration Architecture integration.
<a href="#">"About Order Revisions and As Submitted Orders" on page 48</a>	New topic. Functionality has been added to support order changes in Oracle Application Integration Architecture integration.
<a href="#">"Adding Special Rating Items to a Quote or Order" on page 84</a>	New topic. Functionality has been added to support adding friends and family plans to sales orders.
<a href="#">"About Managing Order Fallout" on page 86</a> <a href="#">"Viewing Fallout Orders and Order Line Items" on page 88</a>	New topics. Functionality has been added to identify and correct orders that fail in the external fulfillment system.
<a href="#">"SISOMBillingSubmitOrderWebService Workflow" on page 101</a>	Modified topic. The SISOMBillingSubmitOrderWebService workflow has been modified.
<a href="#">"SIS OM Modify Products &amp; Services Process" on page 113</a>	New topic. The SIS OM Modify Products & Services Process workflow has been modified.
<a href="#">"SIS OM Disconnect Products &amp; Services Process" on page 115</a>	New topic. The SIS OM Disconnect Products & Services Process workflow has been modified.
<a href="#">"SIS OM Suspend / Resume Products &amp; Services Process" on page 118</a>	New topic. The SIS OM Suspend / Resume Products & Services Process workflow has been modified.
<a href="#">"Workflows to Calculate Prices for Orders" on page 175</a>	New topic. Workflows have been added to support order price calculations.
<a href="#">"Workflows to Process an Order" on page 183</a>	New topic. Workflows have been added to support various internal order-processing operations.
<a href="#">"Workflows to Cancel an Order" on page 198</a>	New topic. Workflows have been added to support order cancellations.
<a href="#">Chapter 11, "Web Services Reference"</a>	New chapter. Web services have been added to support the integration of Siebel Order Management for Industry Applications with external applications for managing order fulfillment.

Table 3 lists changes in the first version of the documentation to support release 8.1 of the software.

Table 3. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1

Topic	Description
<a href="#">"Additional Fields for Quote and Order Line Item Change Histories" on page 20</a>	Modified topic. Siebel Industry Applications-specific fields have been added to the change histories for quote line items and order line items.
<a href="#">"Setting Up Service Charges for Products" on page 26</a>	New topic. A topic has been added for creating a service charge product in the catalog, and associating it with another product and an order type.
<a href="#">"Configuring the Workflow for Promotion Penalties" on page 35</a>	New topic. A topic has been added about configuring the ISS Promotion Disconnect Process workflow so that penalty charge products can be used in Siebel CRM.
<a href="#">"Transferring Service to Another Location (End User)" on page 52</a>	Modified topic. The instructions for transferring a service from one location to another have been modified.
<a href="#">"Process of Managing Bulk Orders" on page 53</a>	New topic. Instructions for end users for creating bulk requests, and bulk orders from those requests, have been added.
<a href="#">"About Bulk Order Creation" on page 63</a>	New topic. Information about the processing logic that is used to create bulk orders has been added.
<a href="#">"Roadmap for Configuring Bulk Orders" on page 64</a>	New topic. Instructions about how administrators can configure bulk order processing have been added.
<a href="#">"Process of Managing Prepaid Services" on page 76</a>	New topic. Instructions about how users can work with prepaid services have been added.
<a href="#">"Process of Configuring Prepaid Services" on page 81</a>	New topic. Instructions about how administrators can configure data retrieval from the billing application have been added.
<a href="#">"Workflows to Edit Quote Line Items" on page 93</a>	New topic. Workflows have been added to allow a user to edit the line items of quotes.
<a href="#">"Workflows to Edit Order Line Items" on page 97</a>	New topic. Workflows have been added to allow a user to edit the line items of orders.
<a href="#">"Workflows to Submit an Order" on page 100</a>	New topic. Workflows have been added to allow a user to submit an order.
<a href="#">"Workflows to Update Order Line Items" on page 105</a>	New topic. Workflows have been added to update an order line item when its status changes in the billing application.
<a href="#">"Workflows to Modify a Service Item" on page 108</a>	New topic. Workflows have been added to allow a user to change a service.
<a href="#">"Workflows to Disconnect a Service Item" on page 115</a>	New topic. Workflows have been added to allow a user to disconnect a service.

Table 3. New Product Features in Siebel Order Management Guide Addendum for Communications, Version 8.1

Topic	Description
<a href="#">“Workflows to Suspend or Resume Service Items” on page 118</a>	New topic. Workflows have been added to allow a user to suspend or resume a service.
<a href="#">“Workflows to Transfer a Service to Another Location” on page 120</a>	Modified topic. Workflows to transfer a service from one location to another have been modified, and a new subworkflow has been added.
<a href="#">“Workflows for Bulk Ordering” on page 141</a>	New topic. Workflow diagrams with descriptions of the bulk ordering process have been added.
<a href="#">“Workflow for Prepaid Services” on page 174</a>	New topic. A workflow diagram with a description of prepaid services has been added.



# 2

## Setting Up Order Management for Industry Applications

This chapter provides an overview of customer order management for the communications, media, and energy industries. It includes the following topics:

- [“About Asset-Based Ordering and Network Ordering”](#) on page 17
- [“About Order Management for Industry Applications”](#) on page 18
- [“Activating Workflows for Order Management for Industry Applications”](#) on page 20
- [“About the Workflow for Order-To-Installation Tasks”](#) on page 21

### About Asset-Based Ordering and Network Ordering

This guide contains information you use in combination with *Siebel Order Management Guide*. For more background information about order management, and for information about setting up order management, see *Siebel Order Management Guide*.

In addition to the functionality described in *Siebel Order Management Guide*, Oracle's Siebel Order Management for Industry Applications supports the functionality in this guide.

#### Employee, Customer, and Partner Asset-Based Ordering

Asset-based ordering allows users to create assets based on orders and to create new orders to modify these assets. For example, if a customer orders telephone service, the application generates an asset record representing that service. Then the customer can place subsequent orders to modify the service (for example, adding call waiting and automatic message forwarding) or to disconnect the service.

The following documents and topics cover asset-based ordering:

- **General Background.** The topics about asset-based ordering in *Siebel Order Management Guide* contain general background information.
- **Employee Asset-Based Ordering.** Most asset-based ordering for employees is available in Siebel Industry Applications and in Siebel Business Applications. The topics about asset-based ordering in *Siebel Order Management Guide* contain information about employee asset-based ordering. [Chapter 3, “Employee Asset-Based Ordering”](#) and [Chapter 4, “Workflows for Employee Asset-Based Ordering”](#) in this guide contain information about additional functionality for employee asset-based ordering.
- **Partner Asset-Based Ordering.** Asset-based ordering for partners is available only in Siebel Industry Applications. [Chapter 5, “Partner Asset-Based Ordering”](#) and [Chapter 6, “Workflows for Partner Asset-Based Ordering”](#) in this guide contain information about partner asset-based ordering.

- **Customer Asset-Based Ordering.** Asset-based ordering for customers is available only in Siebel Industry Applications. [Chapter 7, “Customer Asset-Based Ordering”](#) and [Chapter 8, “Workflows for Customer Asset-Based Ordering”](#) in this guide contain information about customer asset-based ordering.

## Network Ordering

Network Ordering allows companies to configure orders for large networks, such as computer networks and telecommunications networks. [Chapter 9, “Setting Up Network Ordering”](#) and [Chapter 10, “Using Network Ordering”](#) in this guide contain information about network ordering.

# About Order Management for Industry Applications

Siebel Order Management for Industry Applications is based on the same concepts as asset-based ordering. The topic about asset-based ordering in *Siebel Order Management Guide* describes these concepts. This topic describes some additional concepts specific to industry applications.

## Terminology for Order Management

Some terminology in Siebel Order Management for Industry Applications differs from the terminology in Siebel Order Management as shown in [Table 4](#).

Table 4. Terminology Differences for Order Management

Term in Siebel Order Management	Term in Siebel Order Management for Industry Applications
Deactivate	Disconnect
Installed Asset	Installed Asset
Account Summary	Account Summary

## Installed Assets and Billing Items

Installed assets are the assets that serve an account. Installed assets include both products and services. A line item from an order becomes an installed asset if the item is marked as a trackable asset in the product record.

Billing items are the services that are billed to an account.

Sometimes users install assets at one account location, but bill for the assets to another account location. For example, a company might have 150 phone lines installed at two locations, but receive the bill for all 150 phone lines at one of those locations. In this example, the location that receives the bill has 150 billing items, but might have only 50 installed assets.

Users specify the service account and billing account for each line item in the quote-to-order process. For customer users creating quotes and orders in Siebel eSales, the service account and billing account automatically default for every line item. Employee users might want to select the service account and billing account.

## Billing, Service, and Master Accounts

The master account is the primary, or parent, account for a customer. You can set up separate billing and service accounts for a customer that are associated with a higher-level master account for the customer.

## Service ID

A *service ID* is a unique identifier for a service item, such as the phone number for a phone line. The asset management system of a company typically populates the service ID text field.

When a customer orders a quantity of a product or service, such as a dozen phone lines, each product becomes an individual line item with a separate service ID. Users can explicitly ungroup the items to assign service IDs, or the items are automatically ungrouped when users convert the quote to an order.

## Service Point

A *service point* represents a network delivery point, such as a phone jack and a gas pipe, for an asset at a service location. You select a service point, based on the product type, in a field on Quote and Order forms. You need the Siebel Premises module to use service points. For more information, see *Siebel Applications Administration Guide*.

## Additional Fields for Quote Line Items

When you create a line item for a quote in Order Management for Industry Applications, the fields in [Table 5](#) are available, in addition to the fields described in the topic about adding a quote line item in *Siebel Order Management Guide*.

Table 5. Additional Fields for Quote Line Items in Order Management for Industry Applications

Field	Description
Tier Price	Information about the pricing tiers applicable for the product.
Service Point	Serial number of the asset at the service point for the item, for example, a phone jack.
Service Id	Text that identifies the service item, for example, a phone number.
Billing Account	Account to which you bill the service.
Service Account	Account to which you provide the service.

## Additional Fields for Quote and Order Line Item Change Histories

When you create a line item for a quote or an order in Order Management for Industry Applications, the fields in [Table 6](#) are available, in addition to the fields described in the topics about viewing change history for a quote line item and viewing change history for an order line item in *Siebel Order Management Guide*.

Table 6. Additional Fields for Quote and Order Line Item Change Histories in Order Management for Industry Applications

Field	Description
Service ID	Unique identifier for a service item
Net Price	Final price arrived at after applying all discounts to the start price
Billing Profile	The profile used to specify invoice and payment preferences

When Order Management for Industry Applications is integrated with an application for managing billing and revenue, the application provides values for these fields to the billing and revenue application. The integration process reviews these fields to determine changed data. End users can view these fields in a read-only view.

# Activating Workflows for Order Management for Industry Applications

Asset-based ordering is based on Siebel workflows and business services that you can configure. You can customize asset-based ordering to meet the order management requirements of your company. For more information about Business Process Manager, see *Siebel Business Process Framework: Workflow Guide*.

For details about these workflows, see the topic about workflows for asset-based ordering in *Siebel Order Management Guide* and the following chapters in this guide:

- [Chapter 4, “Workflows for Employee Asset-Based Ordering”](#)
- [Chapter 6, “Workflows for Partner Asset-Based Ordering”](#)
- [Chapter 8, “Workflows for Customer Asset-Based Ordering”](#)

In addition to the setup described in *Siebel Order Management Guide*, you must activate workflows specific to asset-based ordering for industry applications. Activate the following workflows:

- **Siebel eSales**
  - All workflows that begin with *CUT eSales*.
  - All workflows that begin with *eSales*.
  - All workflows that begin with *SIS OM*.
- **Siebel Partner Portal**
  - All workflows that begin with *CUT eChannel*.

- All workflows that begin with *SIS OM* (7.5 only).
- **Employee applications**
  - The workflows listed in the topic about setting up asset-based ordering in *Siebel Order Management Guide*.
  - CUT Order Profile Process.
  - CUT Quote Portal Process.
  - CUT Order Portal Process.
  - CUT Go To Customer Portal Subprocess.
  - All workflows that begin with VORD Validate.

For information about how to activate workflows, see *Siebel Business Process Framework: Workflow Guide*.

## About the Workflow for Order-To-Installation Tasks

Siebel Communications includes an order-to-installation task interface that contains all of the tasks that a call center agent performs to sell a communications product. The task interface is included in Siebel Communications. You can configure this interface using Siebel Tools the same way that you configure other Siebel Business Applications.

After finishing these tasks, the call center agent clicks a button that calls a workflow that performs longer-term tasks after the sale, such as waiting for shipping confirmation, calling the customer to conduct a survey after the product ships, and sending the customer a thank you note for completing the survey. The workflow that performs these long-term tasks is not included in Siebel Communications. You create this workflow to satisfy your business requirements.

### Order-To-Installation Task Interface

The call center agent uses the order-to-installation task interface by navigating in a Task pane that lists all the tasks that a call center agent typically performs to sell a communications product. The call center agent clicks the tasks in list order, from top to bottom, to display the screens that the agent needs to perform each task. Some of these tasks include:

- Create the order.
- Create a new account with the order for a new customer.
- Get customer information.
- Assign phone numbers to the customer.
- Get shipping information.
- Get one-time payment information.
- Get billing information.
- Set up an appointment for installation of the product.

Call center agents typically perform these tasks while they are talking to the customer who places the order. These tasks include scripts that tell agents what to say to the customer while performing the task.

## **Workflow for Follow-Up Tasks**

Typically, companies perform follow-up tasks after the product installation. When a call-center agent completes all the order-to-installation tasks and clicks Done, a workflow starts that performs longer-term tasks connected with the order.

You can set up the workflow to schedule and perform the follow-up tasks that your company performs after installation. As an example of how to set up the workflow for your company, the application contains a sample workflow.

# 3

## Employee Asset-Based Ordering

This chapter provides information about employee user tasks in asset-based ordering for industry applications and supplements the information about asset-based ordering in *Siebel Order Management Guide*. This chapter includes the following topics:

- ["Updating Opportunities from Quotes" on page 24](#)
- [Processing a Quote Through the Order-to-Cash Process Integration Pack on page 25](#)
- ["Comparing Prices with Competitor Prices" on page 25](#)
- ["Setting Up Service Charges for Products" on page 26](#)
- [About Synchronizing Product Attributes, Product Classes, Products, and Promotions on page 27](#)
- [Viewing Synchronized Extensible Product Fields on page 35](#)
- ["Configuring the Workflow for Promotion Penalties" on page 35](#)
- ["Setting Up a Product for Oracle Application Integration Architecture Integration" on page 36](#)
- ["Modifying the Order Priority Mapping" on page 40](#)
- ["Processing a Sales Order Through Oracle Application Integration Architecture Integration" on page 40](#)
- [Viewing Shipping Details for Orders and Order Lines on page 45](#)
- [Building a Hierarchy of Orders on page 46](#)
- ["About Order Revisions and As Submitted Orders" on page 48](#)
- [Canceling an Order and Order Lines on page 50](#)
- [Submitting an Order for Technical Service Qualification on page 51](#)
- ["Transferring Service to Another Location \(End User\)" on page 52](#)
- ["Process of Managing Bulk Orders" on page 53](#)
- ["About Bulk Order Creation" on page 63](#)
- ["Roadmap for Configuring Bulk Orders" on page 64](#)
- ["Process of Managing Prepaid Services" on page 76](#)
- ["Process of Configuring Prepaid Services" on page 81](#)
- ["Adding Special Rating Items to a Quote or Order" on page 84](#)
- ["About Managing Order Fallout" on page 86](#)
- ["Viewing Fallout Orders and Order Line Items" on page 88](#)

## Updating Opportunities from Quotes

When the user updates an opportunity from a quote, the revenue associated with the quote is transferred to the opportunity in the Opportunity field of the quote. The user can display the opportunity and view the total revenue transferred from the quote and the individual line items contributing to total revenue. For information about how to update an opportunity from a quote, see *Siebel Order Management Guide*.

In Order Management for Industry Applications, revenue from a quote is calculated as follows:

- 1 Items with the One-Time price type are added. Each item is then displayed separately in the Opportunities screen, Revenues view.
- 2 The price of each item with the Recurring price type is multiplied by a designated number of periods (occurrences). For example, if an item is priced at \$10 for each month and is typically purchased for one year, the number of occurrences for that item is 12, and the revenue for that item is \$120.

You can change the number of occurrences used to compute revenue for an item in either of the following ways:

- Enter a number in the # of Occurrences field in the product record for the item in the Product Administration screen, Products view. This method is useful when a company changes the way in which it sells a product—for example, when a company changes the default length of a contract from one to two years.
  - Enter a number in the # of Revenue Occurrences field in the Quotes screen, Line Item Detail view. This method is useful when a customer purchases a different number of periods than usual.
- 3 Items with the Recurring price type are added. Each item is then displayed separately in the Opportunities screen, Revenues view.
  - 4 The One-Time and Recurring price type subtotals are added. When the user selects Update Opportunity in the Opportunities screen, Revenues view drop-down menu, the total appears in the Revenue field in the Opportunities screen, Opportunities view.

The amount of revenue contributed by each item appears in the Opportunities screen, Revenues view. Items with the One-Time price type appear only once. Items with the Recurring price type appear once for each unit of measurement (for each week, month, and so on.). For example, if revenue of an item is computed using a period of 12 months, each month has a separate line item.

# Processing a Quote Through the Order-to-Cash Process Integration Pack

This procedure describes quote functionality that is specific to the Order-to-Cash PIP. For more information about processing quotes, see the chapter on working with quotes in *Siebel Order Management Guide*.

**NOTE:** This functionality is active if the Order-to-Cash PIP is enabled by the Enable AIA OrderToCash system preference being set to TRUE. For more information about the Enable AIA OrderToCash system preference, see the overview chapter in the *Siebel Communications Guide*.

To process a quote through the Order-to-Cash PIP, follow this procedure.

## *To process a quote through the Order-to-Cash PIP*

- 1 Follow the steps for creating a quote and adding line items, as described in the chapter on creating a quote or sales order in *Siebel Order Management Guide*.
- 2 To customize a quote, in the Line Items view, select a quote line item and click Customize. Siebel Configurator is launched and a configuration screen appears in a separate window. For more information about Siebel Configurator, see *Siebel Product Administration Guide*.
- 3 Enter and save your configurations. Siebel CRM redisplay the Quote screen, where you can continue entering details of the quote.
- 4 When finished entering the quote, click Submit. Siebel CRM sends the quote to the external application for processing by way of Oracle Application Integration Architecture. When the external application finishes processing the quote, the integration updates the quote record in Siebel CRM.

## Comparing Prices with Competitor Prices

A user can compare the prices of products the company offers with the prices of similar products that competitors offer. For example, a user can compare competing rate plans for utilities. The products are similar based on factors such as location, payment method, and meter type.

The process for price comparison follows:

- 1 The application asks the user questions about the region in which the user is located, the current supplier, the current rate plan, usage details (such as the number of units or dollar amount), and the period of usage (such as summer month or winter quarter).
- 2 The application uses this information to determine the average number of units the customer uses in a year.
- 3 The application calculates an annual total cost for the same number of units for each of the company's products that matches the specified criteria.

- 4 The application displays a list of quotes for the company products that specifies how much the customer can save by switching to each of the products.
- 5 The user selects a quote and clicks Enroll to create an order and an account for the user.

For more information about setting up and using price comparisons, see the topic about price comparison in *Siebel Energy Guide*.

## Setting Up Service Charges for Products

Service charges are onetime charges that the customer incurs when the customer suspends, resumes, moves, or cancels service. Products that represent service charges can originate in the billing and revenue application. Product managers can add a service charge product to the catalog, and then associate this service charge product with another product and an order type. When a user creates an order or quote for that other product and that order type, the service charge product is automatically included in the order or quote. Product managers can add service charge products to price lists in the same way that they add other products to price lists. They can also use pricing policies to determine the price of a service charge product based on the data in an order or quote.

For example, if customers are charged a service fee for suspending DSL service, the product manager can add a DSL-Suspend Service Charge product to the catalog, and then associate this new product with the DSL product and a Suspend order type. The product manager can then add this new product to the price lists. When a user suspends the DSL asset for the customer and consequently creates a Suspend order for the DSL product, the DSL-Suspend Service Charge product is automatically included as a line item in the order. The Related Service field of this line item has the DSL product to indicate that the DSL - Suspend Service Charge product is related to the DSL product.

Before you complete the procedure in this topic, you must add the service charge product to the catalog. For information about adding products to the catalog, see *Siebel Order Management Guide*.

### **To set up service charge products for products**

- 1 Navigate to the Administration - Product screen, then the Products view.
- 2 Click the Name field of the product for which you want to set up a service charge product.  
The form for the Product displays.
- 3 Click the Recommendations tab to display the Related Products list.
- 4 Add the service charge product to the Related Products list and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Product	The name of the service charge product.
Relation	The relation of the service charge product to the product. Select Service Charge in this field.
Description	A description of the service charge product.

Field	Comments
Effective Start Date	The date on and after which users can include the service charge product in an order or quote.
Effective End Date	The date after which users cannot include the service charge product in an order or quote.
Order Type	<p>The type of order to which the service charge product applies. Values include:</p> <ul style="list-style-type: none"><li>■ <b>Suspend.</b> These orders suspend service for an asset. The order line items have an Action field of Suspend.</li><li>■ <b>Resume.</b> These orders resume service for an asset after suspension. The order line items have an Action field of Resume.</li><li>■ <b>Move.</b> These orders transfer service for an asset from one location to another location. The order line items for the asset at the new location have an Action field of Add, and the order line items for the asset at the previous location have an Action field of Delete.</li><li>■ <b>Cancellation.</b> These orders disconnect service for an asset. The order line items have an Action field of Delete.</li></ul> <p>Order types for activation and installation are not available because these services are generally component products for the service products to which they apply.</p>

## About Synchronizing Product Attributes, Product Classes, Products, and Promotions

This topic describes the synchronization of product attributes, product classes, products, and promotions (hereafter referred to collectively as *product objects*) with Oracle Product Information Management Data Hub. This topic includes the following topics:

- [About Synchronizing Product Attributes on page 29](#)
- [About Synchronizing Product Classes on page 30](#)
- [About Synchronizing Products on page 31](#)
- [About Synchronizing Promotions on page 32](#)

When Siebel CRM is integrated with Oracle Product Information Management Data Hub, and new product objects are defined in Oracle Product Information Management Data Hub, Oracle Application Integration Architecture integration publishes those objects to Siebel CRM. Additionally, when existing product objects are modified, Oracle Application Integration Architecture integration publishes the modifications to Siebel CRM.

One or more product objects can be synchronized at a time. For example, you can define 20 product attributes at once in Oracle Product Information Management Data Hub and release them all at the same time to Siebel CRM.

Because of the relationships among product objects, they must be synchronized in a certain order. For example, if you synchronize certain attributes that are items of a product, and the product itself, the attributes must be synchronized first. The order of synchronization is as follows:

- 1 Product Attributes
- 2 Product Classes (parent)
- 3 Products (parent)
- 4 Product Classes (child)
- 5 Products (child)
- 6 Promotions

When a product object is published from Oracle Product Information Management Data Hub to Siebel CRM, the information from Oracle Product Information Management Data Hub can include content in more than one language, or it can include content in only one language (not necessarily ENU). Any field value that belongs to translatable content (for example, definition name or display name), is mapped to the corresponding field in Siebel CRM. The input from Oracle Application Integration Architecture specifies the default language code.

A new product object that is synchronized from Oracle Product Information Management Data Hub is a workspace version, that is, a test version, in Siebel CRM. Oracle Application Integration Architecture passes the Auto Release parameter with one of the following settings:

- **N.** Siebel CRM does not automatically release the definition.
- **Y.** Siebel CRM automatically releases the definition.
- **Default.** The system setting within Siebel CRM determines whether or not to automatically release the definition. This is the value of the Workspace Release Flag system preference. For more information about the Workspace Release Flag system preference, see the overview chapter of *Siebel Communications Guide*.

When a product is released, the product cache in Siebel CRM is automatically refreshed, regardless of the Auto Release parameter setting.

If a product object is not automatically released in Siebel CRM, then that product object is released in Siebel CRM when it is released in Oracle Product Information Management Data Hub through Oracle Application Integration Architecture.

**CAUTION:** Automatically releasing product objects at once without testing in Siebel CRM may cause unpredictable and undesired results. It is recommended that you first test the product objects in the workspace environment, then release them when you determine it is safe to do so.

When a product object is updated in Oracle Product Information Management Data Hub, in Siebel CRM the workspace version of that object receives the update. The Auto Release parameter setting determines whether the changes are released at once in Siebel CRM.

For more information about workspace projects, see the chapter on testing products and using workspace projects in *Siebel Product Administration Guide*.

### About Addressing Synchronization Errors

In the case of a synchronization error, the error message describes the problem. If multiple objects are synchronized in the same payload, however, the error message does not indicate in which product, class, attribute, or promotion the problem occurs.

For example, if ten products are synchronized to Siebel CRM, and the ninth product does not have a value for the required field ABC, an error message will indicate that the value for the required field ABC is missing, but will not identify the product in which the field value does not appear. In this case, you must manually find the product from which the field value is missing, and enter a value in the field.

To help identify the sources of synchronization errors, you can increase the log level in Siebel CRM to 3 and check the details in the log files.

## About Synchronizing Product Attributes

A *product attribute* is a characteristic of a product that contains two parts, the definition of the attribute including the name of the attribute, and the possible values of the attribute.

One or more attributes can be synchronized at a time. For example, you can define twenty attributes at once in Oracle Product Information Management Data Hub and release them all at the same time to Siebel CRM.

The parameters of a product attribute in Oracle Product Information Management Data Hub that are synchronized with Siebel CRM are as follows:

- Header fields
- Default Language Code
- Attribute values (name, effective date, Id)
- Display Name (if any)
- Description (if any)
- Domain
- Data Type
- Unit of Measure
- Values
- Auto Release flag

The specific fields that are synchronized are visible in the Administration - Product screen, Attribute Definitions view.

**NOTE:** The Domain Type field value of FreeForm is not supported by the integration.

## About Synchronizing Product Classes

A *product class* is a mechanism by which products and services are organized in a logical classification system. In Oracle Product Information Management Data Hub, this mechanism is called an *item catalog category* (ICC).

When a hierarchical structure of classes is synchronized through the integration, parent classes must be synchronized first, then child classes.

When a product class is synchronized, the information transmitted to Siebel CRM includes the following types of information:

- Class definition
- Properties
- Class header
- Attributes. This information includes Default Value, Rejected Value, and so on.
- Local structure of the class. This information includes any structure that is not inherited from a parent class.
- Hierarchical structure of the class. This information includes the name of the parent class, if any, child classes, if any, and parent-child class relationships.
- Class domain
- Multi-lingual content
- Product domain relationship

The information transmitted to Siebel CRM does *not* include user interface information, constraint rules, scripts, or resources. These items must be added manually in Siebel CRM.

The parameters of a product class in Oracle Product Information Management Data Hub that are synchronized with Siebel CRM are as follows:

- Default Language Code
- Class header:
  - Product Class Name
  - Parent Class ID
  - Display Name (if any)
- Associated attributes:
  - Attribute Ids (local and inherited)
  - Domain
  - Data Type
  - Values
- Structure:
  - Relationship Name

- Domain Type (Product, Class)
- Cardinality
- Domain entity (Class Id, product Id)
- Relationship Domain (in the case of a Class domain type):
  - Product 1 Id
  - Product 2 Id...

The specific fields that are synchronized are visible in the Administration - Product screen, Product Classes view.

**NOTE:** The Domain Type field value of Dynamic Class is not supported by the integration.

## About Synchronizing Products

You can synchronize simple products with one price type and simple products with multiple price types through the integration. A simple product with, for example, two price types in Oracle Product Information Management Data Hub becomes two products in Siebel CRM. You can also synchronize complex products, that is, customizable products, through the integration.

The parameters of a product in Oracle Product Information Management Data Hub that are synchronized with Siebel CRM are as follows:

- Default Language Code
- Basic Product Information:
  - Product Name
  - Product line
  - Product Description
  - Structure type
- Associated Product Line (m:m):
  - Product Line ID 1
  - Product Line ID 2...
- Price lists:
  - Multiple price types
  - Same price list with different effective dates
- Price List line items (one-to-many):
  - Default Price List (configurable in Siebel CRM and Oracle Application Integration Architecture)
  - Effective Date
  - Discount fields
- Rules (one-to-many). Includes compatibility rules and recommendation messages.

- Effective Date
- Subject product Id, product line Id, class Id
- Associated Class:
  - Class ID
  - Local Specific Attributes Value from inheritance (if any). This information includes Attribute Id, value sets, flags, and so on.
  - Local specific domain entity from inheritance (if any). Users can add specific products for Domain Type of Class.
- Local Structure:
  - Relationship Name
  - Domain Type (Product, Class)
  - Cardinality (maximum, minimum, and default quantities)
  - Domain entity (class name, product name)
  - Relationship Domain (in the case of a Class domain type):
    - Product 1 Id
    - Product 2 Id...
- Child products with relationships (for complex products):
  - Structure of parent-child relationships
  - Structure inherited from class
  - BOM

The integration does not support the synchronization of eligibility rules, or of collateral items such as image files and key features. Additionally, synchronization does not override certain product parameters. These parameters include user interface setup, configurator rules, and scripts defined in Siebel CRM. These parameters must be entered and maintained in Siebel CRM.

Most fields that are synchronized are visible in the Administration - Product screen, Detail view and the Administration - Product screen, Product Definitions view.

**NOTE:** The Domain Type field value of Dynamic Class is not supported by the integration.

## About Synchronizing Promotions

A *promotion* represents the marketing definition of a product. Promotions are time-sensitive, and they state discounted prices and contractual terms. A promotion is different from a generic product, because of characteristic fields, such as Upgrade Path, Commitment Plan, Aggregated Product, Aggregated Pricing, and so on.

The parameters of a promotion in Oracle Product Information Management Data Hub that are synchronized with Siebel CRM are as follows:

- Default Language Code

- Basic promotion information (header information):
  - Name
  - Description
  - Promotion Structure Type
  - Effective Dates
  - Message, Score, and so on
- Local component products structure (one-to-many):
  - Product ID (complex product or simple product)
  - Cardinality and other flags (Recommendable and so on)
  - Specific setup for the promotion (complex product):
    - Product 1 Id
    - Product 2 Id ...
- Local component products pricing (one-to-many):
  - Product ID (complex product or simple product)
  - Discount type, value, and effective dates
  - Specific setup for the promotion (complex product):
    - Product 1 Id, Discount type, value, effective dates
    - Product 2 Id, Discount type, value, effective dates ...
- Upgrade Paths:
  - Original Promotion ID
  - Effective Date
  - Other fields
- Commitment Plan:
  - NRC/RC set up
  - Charge/Credit
- Compatibility rules (one-to-many):
  - Effective Date
  - Subject product Id, product line Id, and class Id

Multiple upgrade paths for a promotion can be defined in Oracle Product Information Management Data Hub and published to Siebel CRM. The integration creates or updates the upgrade paths. The specific upgrade paths depend on the value of the original Promotion Id field, which has been previously synchronized.

Multiple instances of the same product cannot be associated with a promotion.

A promotion can be updated in Siebel CRM through the integration when an Oracle Product Information Management Data Hub user changes the promotion definition in one or more of the scenarios that follow:

- The header information is changed. For example, the value of the Score field or the Instances field may be modified.
- The structure is changed, for example, component products are removed or added, cardinality is changed with existing component products, a default product selection is changed, or an exclusive rule of product selection is modified.
- The component pricing is changed. Pricing changes may involve modifications to child component product pricing discount type, value, effective dates, and so on.
- The rules are updated.
- The upgrade path is changed. Changes to the upgrade path may involve an existing rule being assigned a different term, a new rule being added, an old rule being removed, and so on.
- The commitment plan is changed.

The integration does *not* support aggregate products, aggregate pricing, multi-value group fields such as Campaign, or multi-value group fields in Commitment. Additionally, no synchronization occurs between Oracle Product Information Management Data Hub and Siebel CRM for the following parameters, which must be entered and maintained in Siebel CRM:

- **Schedule fields.** No schedule fields (for example, RC Schedule or NRC Schedule) are synchronized.
- **Plan field.** The Plan name is manually synchronized between Siebel CRM and Oracle Product Information Management Data Hub. In other words, an Oracle Product Information Management Data Hub user copies the Plan name from Siebel CRM.
- **Charge/Credit field.** Charge/Credit is not synchronized from Siebel CRM back to Oracle Product Information Management Data Hub. When Siebel CRM receives an update from Oracle Product Information Management Data Hub for the promotion, the integration completely overrides the value of Charge/Credit (that is, the integration deletes the existing value in Siebel CRM and adds the new content from Oracle Product Information Management Data Hub).
- **Promotion Term field.** Promotion Term is not synchronized from Siebel CRM back to Oracle Product Information Management Data Hub. When Siebel CRM receives an update from Oracle Product Information Management Data Hub for the promotion, the integration completely overrides the value of Promotion Term (that is, the integration deletes the existing value in Siebel CRM and adds the new content from Oracle Product Information Management Data Hub).
- **Pro-Rate Plan field.** The Pro-Rate Plan field is not defined in Oracle Product Information Management Data Hub and appears blank in Siebel CRM. Siebel CRM users can complete this field manually.

The specific fields that are synchronized are visible in the Administration - Product screen, Product Promotions view. Component products are visible in the Administration- Product screen, Components view.

## Viewing Synchronized Extensible Product Fields

Your company might want to extend the data schema of Siebel CRM to support its business policy or product-specific requirements. Extending the Siebel CRM data schema involves the use of *extensible fields*, which exist in product definitions in Oracle Product Information Management Data Hub but not in the default Siebel application, and which are added to Siebel CRM through the integration. An extensible field definition includes the name, data type, and value set for the field.

At synchronization time, Oracle Product Information Management Data Hub sends the product information including extensible fields (consisting of a field name and a single value for a particular product) to Siebel CRM through Oracle Application Integration Architecture. The default language code of the name and value is also specified. For example, a product named, Consumer IPTV STB, may include extensible field named, T2RappointmentRequired, with a value of Y. Siebel CRM stores this field and value in the Siebel database.

Siebel CRM product administrators can view these extensible fields in a read-only view.

To view the extensible fields passed by the integration for a selected product, follow this procedure.

### *To view synchronized extensible product fields*

- 1 Navigate to Administration - Product, then the Products view.
- 2 Query for and select the product for which you want to view the extensible fields.
- 3 Click the User Defined Attributes view tab.

The User Defined Attributes list displays the names and values of the extensible fields that have been added to the current product record from Oracle Product Information Management Data Hub through the integration.

## Configuring the Workflow for Promotion Penalties

One type of service charge product is a penalty associated with a promotion. For example, a company gives a customer free minutes of phone time as part of a promotion. However, the customer must maintain phone service with the company for two years as a condition of the free minutes. If the customer prematurely terminates phone service, the company charges the customer a penalty. This penalty charge appears on the customer invoice.

A penalty charge product is created in the billing application. After the products in the billing application are synchronized with the products in the Siebel CRM application, the penalty charge product is available in the Siebel CRM application. After the penalty charge product is available in Siebel CRM, administrators must configure the ISS Promotion Disconnect Process workflow to use this penalty charge product.

Siebel Communications can be integrated with third-party billing and revenue systems through Oracle Application Integration Architecture. In the context of Oracle Application Integration Architecture, the penalty charge product is originated in Oracle Communications Billing and Revenue Management. However, if Oracle Application Integration Architecture integration is not active, the penalty charge product can be originated in a CRM application.

For more information about Oracle Application Integration Architecture, see the overview chapter in *Siebel Communications Guide*.

### ***To configure a promotion penalty***

- 1 Navigate to the Administration - Product screen, then the Products view.
- 2 Select the service charge product for the promotion penalty.
- 3 Click Menu, select About Record, and note the value in the Row # field.  
**NOTE:** If the Row # field contains no value, the products in the billing application are not yet synchronized with the products in the Siebel CRM application.
- 4 Start Siebel Tools and log in as the administrator.
- 5 Select Workflow Process in the Object Explorer, right click the ISS Promotion Disconnect Process workflow, and select Edit Workflow Process.

The workflow diagram and the Multi Value Property Window display.

- 6 Edit the Create Penalty step:
  - a In the workflow diagram, select the icon for this step to display its multi value properties.
  - b In the Multi Value Property Window, change the value for the Product Id field to the value that you noted in [Step 3](#).
- 7 Edit the Create Penalty Order step:
  - a In the workflow diagram, select the icon for this step to display its multi value properties.
  - b In the Multi Value Property Window, change the value for the Product Id field to the value that you noted in [Step 3](#).
- 8 Deploy the configured workflow.

For information about deploying workflows, see *Siebel Business Process Framework: Workflow Guide*.

## **Setting Up a Product for Oracle Application Integration Architecture Integration**

When you set up a product in Siebel CRM, you have several options that are specific to Oracle Application Integration Architecture integration. Among these are fields for setting up discounts that will propagate to the external Oracle® Communications Billing and Revenue Management system, and fields for instructing the external fulfillment system how to process the product in an order.

The following procedure describes product setup details that are specific to Oracle Application Integration Architecture integration fulfillment.

**To set up a product for Oracle Application Integration Architecture integration**

- 1 Navigate to the Administration - Product screen, then the Products view.
- 2 In the Products list, add a new record or select an existing record and complete the necessary fields.

Some fields are described in the table that follows.

Field	Comments
Pricing Commit Type	<p>Specifies a method for price override. Indicates whether pricing for this product is committed or dynamic. Possible values are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Committed.</b> An adjusted price is not affected by mass price change. Consequently, an adjustment is processed by Oracle Communications Billing and Revenue Management as a price override.</li> <li>■ <b>Dynamic.</b> An adjusted price is not committed and can be affected by mass price changes. Consequently, an adjustment is processed in Oracle Communications Billing and Revenue Management as a discount override, and the discount can be tracked against a separate GL code in Oracle Communications Billing and Revenue Management. The discount override in Oracle Communications Billing and Revenue Management can be an amount or a percentage, depending on the value in the Dynamic Discount Method field.</li> </ul> <p>This field interacts with other fields under different conditions. For more information about these interactions, see <a href="#">“About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management”</a> on page 38.</p>
Dynamic Discount Method	<p>Specifies a method for a discount override. When Pricing Commit Type is set to Dynamic, this field defines how to apply a discount in Oracle Communications Billing and Revenue Management. Possible values are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Amount.</b> Applies the discount as a monetary amount.</li> <li>■ <b>Percentage.</b> Applies the discount as a percentage of the price.</li> </ul> <p>This field interacts with other fields under different conditions. For more information about these interactions, see <a href="#">“About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management”</a> on page 38.</p>

Field	Comments
Fulfillment Item Code	<p>List of available selections is populated by the selection in the Product Class field, and includes all the classes in the hierarchy of the selected product class. If this product is a child product inherited from a class, you can select the class specified in the Product Class field, or any of its parents up the hierarchy.</p> <p>By associating the product with a class, the value in this field tells the fulfillment system how to fulfill the product in the order. The value is passed to the fulfillment system from the product definition by way of the order line that specifies the product.</p>
Composition Type	<p>Describes the composition of the product. Used by the integration to define fulfillment rules. Passed to the fulfillment system by way of the order line that specifies the product. Includes the following values:</p> <ul style="list-style-type: none"><li>■ <b>Partial Item.</b> This product cannot be fulfilled on its own and must be fulfilled in the context of something else; for example, a one-time charge product.</li><li>■ <b>Whole Item.</b> This product is self-contained can be fulfilled on its own. Cannot contain another Whole Item product; can only contain Partial Item products.</li></ul>

3 Complete the other fields, as needed.

For general information about setting up a product, see the chapter on basic product administration in *Siebel Product Administration Guide*.

**NOTE:** For a special rating product such as a friends and family calling plan, the Composition Type value must be Partial Item. Additional product setup options are available for special rating products. For more information about setting up a special rating product, see the chapter on profiles in *Siebel Communications Guide*.

## About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management

A one-time or recurring discount defined in Siebel CRM and sent to Oracle Communications Billing and Revenue Management through the integration is identified in Oracle Communications Billing and Revenue Management as either a price override or a discount override, depending on the values of the Pricing Commit Type and Dynamic Discount Method fields of the product record.

Pricing Commit Type can be Committed (the adjusted price is not affected by price change, so the adjustment is a price override in Oracle Communications Billing and Revenue Management) or Dynamic (the adjusted price can be affected by mass price changes, so the adjustment is a discount override in Oracle Communications Billing and Revenue Management). Dynamic Discount Method defines whether the discount is applied as an amount or percent in Oracle Communications Billing and Revenue Management when the Pricing Commit Type is set to Dynamic.

Table 7 summarizes the net effects in Oracle Communications Billing and Revenue Management based on the settings in Siebel CRM.

Table 7. Siebel CRM Settings and Oracle Communications Billing and Revenue Management Results

Pricing	Dynamic with Amount	Dynamic with Percent	Committed
List Price	\$20	\$20	\$20
Discount	\$5	25%	\$5
Net Price	\$15	\$15	\$15
Adjusted Net Price <sup>1</sup>	\$20 [25-5]	\$18.75 [25*(1-0.25)]	\$15

1. Mass change in Oracle Communications Billing and Revenue Management increases the list price to \$25 (original list price + \$5)

These fields are definable in the product definition and the promotion definition. These fields are also exposed in the quote line items, order line items, and assets.

Table 8 summarizes how the Pricing Commit Type value is derived based on the design-time (product setup) and run-time (quote or order line generation) definitions.

Table 8. Pricing Commit Type Values

Pricing Commit Type Design-Time Definition	Pricing Commit Type Run-Time Adjustment	Net Value Applied in Order Line
Dynamic	Dynamic or no change	Dynamic
Dynamic	Committed	Committed
Committed	Dynamic or no change	Committed
Committed	Committed	Committed

In the sales order line items, selecting the Skip Re-price field allows end users to exclude a line item from the pricing procedure, and therefore prevent any further changes based on the effects of the Pricing Commit Type and Dynamic Discount Method field values.

## Modifying the Order Priority Mapping

When an order is submitted, the message posted to the Java Message Service (JMS) queue includes the order priority that a user selects in Siebel CRM. A mapping of this order priority selection to a language-independent code recognized by JMS allows the order to be processed through the JMS queue according to the priority specified in Siebel CRM. The default order priority mapping from Siebel CRM to JMS is shown in [Table 9](#).

Table 9. Order Priorities

Order Priority in Siebel CRM	JMS Priority
Low	3
Medium	5
High	7
Urgent	9

To change the order priority mapping from Siebel CRM to JMS, follow this procedure.

### *To modify the order priority mapping*

- 1 Navigate to the Administration - Data screen, then the List Of Values view.
- 2 Query for Type equals SWI\_ORDER\_JMS\_PRIO\_MAPPING.

The List of Values list displays a value for each order priority. The value in the Display Value column corresponds to an order priority value in Siebel CRM, while the value in the Language-Independent Code column represents the JMS priority.

- 3 Change the values in the Language-Independent Code column to define the new mapping.
- 4 Click Clear Cache to clear the cache.

For more information about configuring lists of values, see the chapter on working with lists of values in *Siebel Applications Administration Guide*.

## Processing a Sales Order Through Oracle Application Integration Architecture Integration

When you process orders in Siebel CRM through Oracle Application Integration Architecture integration, you have several options that are specific to the integration.

This procedure describes order and order line item functionality that is specific to Oracle Application Integration Architecture integration of Siebel CRM. For more information about viewing orders, editing orders, and submitting order revisions, see the chapter on asset-based ordering in *Siebel Order Management Guide*.

To process a sales order through Oracle Application Integration Architecture integration, follow this procedure.

**To process an order through Oracle Application Integration Architecture integration**

- 1 Follow the steps for creating an order as described in the chapter on asset-based ordering in *Siebel Order Management Guide*.
- 2 In the order header, view or complete the additional fields as needed. Some fields are described in the table that follows.

Field	Comments
Success Dependency	<ul style="list-style-type: none"> <li>■ <b>All or None.</b> All order items must be fulfilled successfully, or the whole order fails.  When the order header-level Success Dependency field is set to All or None, it overrides the order line item Success Dependency field settings.</li> <li>■ <b>Default.</b> For the order to succeed, it is not necessary that the order line items must succeed. Set this value when the line items are not interdependent and can be fulfilled separately.</li> </ul>
Status	<p>Some values pertaining to Oracle Application Integration Architecture integration are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>In Progress.</b> Order is being processed in the external fulfillment system.</li> <li>■ <b>As Submitted.</b> Identifies this order as a reference copy of a submitted order that was subsequently modified during its fulfillment. For more information about “As Submitted” order records, see <a href="#">“About As Submitted Orders” on page 49</a>.</li> </ul>
Copied To Order	Stores the Row Id of the backup order that was copied from the current order.
Parent Order #	To construct an order hierarchy by designating another order as parent to the current order, specify a parent order in this field. For more information about parent and child orders, see <a href="#">“Building a Hierarchy of Orders” on page 46</a> .

Field	Comments
Priority	<p>Priority of the order. Determines the place of this order in the processing sequence in the JMS queue when the order is submitted. Values, and their JMS mappings, are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Low.</b> JMS priority 3</li> <li>■ <b>Medium.</b> JMS priority 5</li> <li>■ <b>High.</b> JMS priority 7</li> <li>■ <b>Urgent.</b> JMS priority 9</li> </ul> <p>These mappings are configurable. For information about changing the order priority mappings, see <a href="#">“Modifying the Order Priority Mapping” on page 40.</a></p>
Change Reason	<p>When preparing to submit a revision of an already-submitted order, select a reason for the change. Default value is No Reason. For more information about order revisions, see <a href="#">“About Order Revisions” on page 48.</a></p>
Original Qty	<p>Read only. After an order is revised, the previous value of the Quantity field is copied to the Original Quantity field. This allows you to perform an order line quantity change and resubmit the changed order. For more information about order revisions, see <a href="#">“About Order Revisions” on page 48.</a></p>

- 3 In the More Info view, view or complete the additional fields as needed. Some fields are described in the table that follows.

Field	Comments
Job Id	<p>Bulk Order Id. Assigned when an order is created as a part of a bulk request submission.</p>
Job Type	<p>Bulk order type. Values are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Homogeneous.</b> All the orders in the job are similar to each other.</li> <li>■ <b>Heterogeneous.</b> Different types of orders exist in the same job.</li> <li>■ <b>3rd Party Homogeneous.</b> Like Homogeneous, but originating from an external source (for example, a partner).</li> <li>■ <b>3rd Party Heterogeneous.</b> Like Heterogeneous, but originating from an external source (for example, a partner).</li> <li>■ <b>Correlated.</b> The job contains interdependent orders.</li> </ul>

- 4 In each of the order line items, view or complete the additional fields as needed. Some fields are described in the table that follows.

Field	Comments
Success Dependency	<p>Read-only, carried in from the definition of the product associated with the order line item.</p> <ul style="list-style-type: none"> <li>■ <b>All or None.</b> All order items must be fulfilled successfully, or the whole order fails.  When the order header-level Success Dependency field is set to All or None, it overrides the order line item Success Dependency field settings.</li> <li>■ <b>Default.</b> For the order to succeed, it is not necessary that the order line items must succeed. The product administrator sets this value when the line item can be fulfilled on its own and is not dependent on any other line item, such as for a partial item.</li> </ul>
Change Cost	<p>Read-only. Cost to change this line item. Values include High, Medium, Low, and PONR (signifying Point of No Return, the point at which it is technically unfeasible to make changes to the line item).</p> <p>When a line item reaches Point of No Return, that line item becomes read-only, and remains read-only in subsequent order revisions.</p>
Status	<p>Some values pertaining to Oracle Application Integration Architecture integration are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>In Progress.</b> Order line is being processed in the external fulfillment system.</li> <li>■ <b>As Submitted.</b> Identifies this order line as a reference copy of a submitted order line that was subsequently modified during its fulfillment. For more information about "As Submitted" order records, see <a href="#">"About As Submitted Orders" on page 49</a>.</li> </ul>
Fulfillment Status	<p>Last fulfillment status reached. Updated by the integration as part of the Status update. This field is updated when the order status changes to Complete or Cancelled, removing the dependency between the order status in the back-office application and the order status in Siebel CRM.</p>
Status Context	<p>Additional information about the status of this order, provided by the external order fulfillment system.</p>
Revised Line Item Id	<p>Line Item ID of the previous order line item revised by this line item.</p> <p>For more information about the fields that track order revisions, see <a href="#">"About Revised Order Line Item IDs" on page 49</a>.</p>
Milestone	<p>Last fulfillment milestone reached. Updated by the integration as part of the Status update.</p>

Field	Comments
Pricing Commit Type	<p>Read-only. Specifies a method for price override. Computed in the pricing procedure based on the product or promotion definition established by the administrator, and on the application of either policy or manual discounts. Possible values are as follows:</p> <ul style="list-style-type: none"> <li>■ <b>Committed.</b> An adjusted price is not affected by mass price changes. Consequently, an adjustment is processed by Oracle Communications Billing and Revenue Management as a price override.</li> <li>■ <b>Dynamic.</b> An adjusted price is not committed and can be affected by mass price changes. Consequently, an adjustment is processed in Oracle Communications Billing and Revenue Management as a discount override, and the discount can be tracked against a separate GL code in Oracle Communications Billing and Revenue Management. The discount override in Oracle Communications Billing and Revenue Management can be an amount or a percentage, depending on the value in the Dynamic Discount Method field.</li> </ul> <p>A manual adjustment to the order sets the Pricing Commit Type of each order line to Committed. If a pricing adjustment to this line item has a Pricing Commit Type of Committed, the Pricing Commit Type of the line item is set to Committed.</p> <p>This field interacts with other fields under different conditions. For more information about these interactions, see <a href="#">“About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management”</a> on page 38.</p>
Dynamic Discount Method	<p>Read-only. Specifies a method for a discount override. Computed in the pricing procedure based on the product or promotion definition established by the administrator, and on the application of either policy or manual discounts. When Pricing Commit Type is set to Dynamic, this field defines how to apply a discount in Oracle Communications Billing and Revenue Management. Possible values are as follows:</p> <p>Computed in the pricing procedure based on the admin-time definition of the product or promotion and application of either policy or manual discounts.</p> <ul style="list-style-type: none"> <li>■ <b>Amount.</b> Applies the discount as a monetary amount.</li> <li>■ <b>Percentage.</b> Applies the discount as a percentage of the price.</li> </ul> <p>This field interacts with other fields under different conditions. For more information about these interactions, see <a href="#">“About Mapping Discounts and Price Overrides to Oracle Communications Billing and Revenue Management”</a> on page 38.</p>

Field	Comments
Skip Re-price	Select to exclude this line item from the pricing procedure. Clear to apply the pricing procedure to this line item. Clearing this field triggers a pricing update, which may involve calculated updates to the values of the Net Price, Pricing Commit Type, and Dynamic Discount Method fields.
Change Reason	When preparing to submit a revision of an already-submitted order line item, select a reason for the change. Default value is No Reason. For more information about order revisions, see <a href="#">“About Order Revisions”</a> on page 48.

- To customize an order, in the Line Items view, select an order line item and click Customize.

Siebel Configurator is launched and a configuration screen appears in a separate window. For more information about Siebel Configurator, see *Siebel Product Administration Guide*.

**NOTE:** This functionality is active if the Order-to-Cash PIP is enabled by the Enable AIA OrderToCash system preference being set to TRUE. For more information about the Enable AIA OrderToCash system preference, see the overview chapter in the *Siebel Communications Guide*.

- Enter and save your configurations.

Siebel CRM redisplay the Sales Order screen, where you can continue entering details of the order.

- Submit the order for technical service qualification, if any order line items require it.

For more information on technical service qualification, see [“Submitting an Order for Technical Service Qualification”](#) on page 51.

- When finished entering the order, click Submit.

**NOTE:** Once submitted, an order cannot be deleted.

## Viewing Shipping Details for Orders and Order Lines

You can access back-office information about order and line item shipping in Siebel CRM. This information is read-only, and is entered and modified only by back-office personnel.

**NOTE:** This functionality is active if the Order-to-Cash PIP is enabled by the Enable AIA OrderToCash system preference being set to TRUE. This functionality is *not* active for the Order-to-Bill PIP or the Agent Assisted Billing Care PIP. For more information about system preferences and PIPs, see the overview chapter in the *Siebel Communications Guide*.

To view shipping details for an order and line item, follow this procedure.

### *To view shipping details for an order and order line*

- Navigate to the Sales Order screen, then the List view.

2 In the Sales Order list, find the order for which you want to view shipping details.

3 Drill down on the link in the Order # field.

4 Click the Shipping view tab.

The Shipping form displays shipping information for the order sent from the back-office system. The information fields include Pack Instructions and Ship Instructions.

5 Click the Line Items subview tab.

The Shipping list above the Line Items form displays additional shipping information for the order sent from the back-office system. The information fields include Change Reason, Package, Pack Instructions, Ship Date, Ship Instructions, Shipping, and Requested Date.

6 Click the Ship Detail subview tab.

7 In the Shipping list above the Ship Detail list, select the order line item for which you want to view shipping details.

The Ship Detail list displays shipping information for the selected order line item sent from the back-office system. The information fields includes Tracking Number, Product, Source Inventory Location, Quantity, Ship Date, and Ship Carrier.

## Building a Hierarchy of Orders

You can define a dependency between orders in Siebel CRM by pointing an order to another order as a parent order. In the order fulfillment system, a parent order must be processed before the child orders of that parent. This allows you to build a hierarchy of related orders, so a order that you designate as a parent order is fulfilled before orders you designate as child orders of that parent.

For example, suppose a company with a headquarters office and three branch offices wants to order the equipment for a new computer network. Some of the equipment must be installed at the company headquarters, while other equipment must go to the branch offices. The equipment must be up and running at headquarters in order for the equipment at the branch offices to function. In Siebel Communications, you can distribute the equipment into four orders: a parent order for the company headquarters and three associated child orders, one for each of the branch offices. Fulfillment of the parent order must predate fulfillment of the child orders. This functionality helps to make sure that the headquarters office receives its allotment of network equipment first, so this equipment can be installed before the equipment destined for the branch offices.

You can build a multilevel hierarchy by selecting child orders as parent orders of other (grandchild) orders.

**NOTE:** Certain validations and limits apply to which orders can be child orders and parent orders. For more information, see [“Restrictions and Requirements for a Parent-Child Order Relationship” on page 47.](#)

### Designating a Parent Order for an Order

To designate a parent order for an order, follow this procedure.

**To designate a parent order for an order**

- 1 Navigate to the Sales Orders screen, then the List view.
- 2 In the Sales Orders list, find the order you want to be the child order; in other words, the order for which you want to designate a parent order.
- 3 Drill down on the link in the Order # field, and click the Line Items view tab.
- 4 In the Parent Order # field of the order header, select the parent order for this order, and click OK.

The picklist of the Parent Order # field shows only the orders that do not violate any of the restrictions on parent orders described in [“Restrictions and Requirements for a Parent-Child Order Relationship” on page 47](#).

- 5 When finished preparing the order, click Submit.

Along with the order, the integration passes the parent-child order relationship to the fulfillment system.

**Restrictions and Requirements for a Parent-Child Order Relationship**

The following validations and limits apply to parent orders and child orders:

- The Status field of a parent order can have any value *except* Complete, Cancelled, Rejected, or As Submitted.
- An order cannot be a parent order if the order is inactive and the value of the Status field is Complete, Cancelled, Rejected, or As Submitted. Orders with these status values are not available for selection in the Parent Order # field.

**NOTE:** Only the Status values of Pending, Submitted, Complete, Cancelled, Rejected, and Inactive are used in Siebel Communications. You can hide other Status values by changing the pick applet search specification of the Status field.

- A child order cannot be its own parent.
- A child order cannot be submitted before its parent order is submitted.
- The latest due date of the parent order line items must be earlier than the earliest due date of the child order line items. In other words, all parent order line items must be completed before processing of any child order line items can begin.
- The parent order line item with the latest due date of any of the parent order line items must have an earlier due date than the earliest due date of any of the child order line items. In other words, all parent order line items must be completed before processing of any child order line items can begin.
- In the case of a multilevel order hierarchy, Siebel CRM validates the dates of each child order level only against the dates of its immediate parent.

For example, in the case of a three-level order hierarchy with one parent, one child, and one grandchild, the dates of the grandchild order line items are validated against the dates of the child order (parent of the grandchild) line items, but not against the dates of the ultimate parent order line items.

- A child order cannot be submitted if the parent order has not been submitted.
- After a parent order has been selected for a child order, you can select a different parent order for that child order.
- If a parent order is revised after it is linked to a child order, child order references are not automatically updated.

For example, if you submit a revision of a parent order, a child order of that parent order remains associated with the original version of the order (Revision 1). To maintain the parent-child order relationship with the currently active version of the parent order, you must manually change the parent order to Revision 2 in the Parent Order # field of the child order.

## About Order Revisions and As Submitted Orders

This topic describes some characteristics of order modification functionality in the context of Oracle Application Integration Architecture integration. These characteristics include order revisions and “as submitted” order records.

### About Order Revisions

You can revise an original order, which creates a new version of the same order. The Revise feature allows you to revise the original order by creating a new order record with the same order number. The versions are distinguished by a revision number.

When you submit order revisions in Siebel CRM through Oracle Application Integration Architecture integration, you have several options that are specific to the integration. This topic describes features that are specific to Oracle Application Integration Architecture integration of Siebel CRM.

The following restrictions apply to order revisions:

- You cannot delete a revised order, you can only cancel it with the Cancel Revision menu option.
- An order becomes Inactive after it is revised.
- Only one revision for an order can be Active or Pending.
- You cannot cancel or delete an order revision that has been submitted.
- You cannot change a product in an order revision line item. You can only delete the line item and then add a line for the new product.
- You cannot change the value of the Order # field in an order revision.
- You cannot revise an unsubmitted order.

For more information about revising an order, see the chapter on working with sales orders in *Siebel Order Management Guide*.

## About Revised Order Line Item IDs

Siebel CRM and the external fulfillment system track revisions to order line items with the Row Id and Revised Line Item Id fields in Siebel CRM, and the Base Order Item Id field in the fulfillment system.

When a new order is created, and when a new line is added to an existing order, the value of the Row Id, Revised Line Item Id, and Base Order Item Id fields in the order line are the same. When a revision is created for the order, the following changes occur in existing order lines:

- If a line changes, the Row Id of the original order item is copied into Revised Line Item Id of the revised order item.
- The value of the Base Order Item Id field remains the same as the original version of the order line.

Table 10 illustrates these concepts.

Table 10. Revised Order Line Item IDs

Order Version	Order Action	Row Id	Revised Line Item Id	Base Order Item Id
O.1	Create an order with one line (L-1); submit the order.	L-1	L-1	L-1
O.2	Revise the order and add a line (L-4); submit the order.	L-2	L-1	L-1
		L-4	L-4	L-4
O.3	Revise the order and modify a line (original L-4); submit the order.	L-3	L-2	L-1
		L-5	L-4	L-4
O.4	Revise the order and delete a line (original L-1); submit the order.	L-7	L-5	L-4

The correlation of the Row Id, Revised Line Item Id, and Base Order Item Id fields allows the fulfillment system to track which order lines are revised.

It is especially important for the fulfillment system to access previous values in case of a cancellation. For example, suppose an order is modified by a change to its Service Id (phone number). The revised order has been submitted, but is not yet fulfilled. Before fulfillment occurs, a cancellation is requested. This generates a revised order with no line items. The fulfillment system must know the original Row Id value of the former line item to identify what item to cancel. This information is provided using the Row Id, Revised Line Item Id, and Base Order Item Id.

## About As Submitted Orders

An order submitted from Siebel CRM can only be changed by creating an order revision or a follow-on order while the order is in flight. However the fulfillment system can change the order. Changes made by the fulfillment system may include, for example, adding reserved resources to the original order, or updating the status of the order, or replacing the existing products as they were captured with equivalent products.

When an order is modified during its fulfillment by replacing products or changing product attributes, if configured, Siebel CRM makes a copy of the order in “As Submitted” form for user reference. Changes to the status of the order, or changes to record reserved resources, do not trigger the creation of an “As Submitted” copy.

The “As Submitted” copy of the order is identified by a Status field value of As Submitted. The “As Submitted” copy of the order has a new Order ID, and its line items have new Order Line Item IDs. This is because the fulfillment system still has to reference the original Order ID and Order Line Item IDs.

Siebel CRM creates an “As Submitted” copy of the order *only* when the order is first changed. Siebel CRM applies any additional changes to the products in the order, or the attributes of those products, to the original order and does not create additional copies of the order.

## Canceling an Order and Order Lines

You can cancel orders and order line items in Siebel CRM and submit the cancellations to the back-office application for processing.

### Canceling an Order

You can cancel an order and submit the cancellation to the back office system for processing. Orders cannot be canceled when the order Status value is Shipped, Fulfilled, or Closed.

To cancel an order, follow this procedure.

**CAUTION:** Do *not* try to cancel an order by manually setting the order Status field to Canceled.

#### *To cancel an order*

- 1 Navigate to the order that you want to cancel.
- 2 Revise the order, which creates a new version of the order.  
**NOTE:** This step is required *only* if the Order-to-Cash PIP is active.
- 3 Choose a cancellation reason from the Cancel Reason list.
- 4 Click Submit to submit the order for cancellation.

The order Status field is set to Cancel Pending. When the order is canceled successfully in the back office system, the order Status field is set to Canceled.

### Canceling an Order Line Item

You can cancel one or more line items within an order instead of canceling an entire order.

To cancel an order line item, follow this procedure.

### *To cancel order line items*

- 1 Navigate to the order line item you want to cancel.
- 2 Select Request To Cancel for the order line.
- 3 Select a cancellation reason from the Cancel Reason list.
- 4 Click Submit to submit the revised order line for cancellation.

## Submitting an Order for Technical Service Qualification

During order capture, some services may require technical service qualification before those services can be offered to a customer. Which services require technical service qualification depends partly on the services your company offers, and partly on the business practices of your company.

Siebel CRM allows you to send an order to the fulfillment system to check whether or not the service is technically qualified before the order itself is submitted for fulfillment. The fulfillment system verifies whether that service is technically qualified to be available to that order or to that customer.

For example, a sales order containing an order line item to add DSL access may require a technical service qualification. In this case, before submitting the order for provisioning, you submit the order to the external provisioning system to check the technical availability of a DSL access service for the specified address.

To submit an order for technical service qualification, follow this procedure.

### *To submit an order for technical service qualification*

- 1 Follow the steps for creating an order as described in the chapter on asset-based ordering in *Siebel Order Management Guide*.
- 2 Complete the fields of the order header, add order line items, and complete the fields of the order line items, as described in ["Processing a Sales Order Through Oracle Application Integration Architecture Integration" on page 40](#).
- 3 Do one of the following:
  - On the Sales Order screen, click the Catalog view tab, and then click TSQ in the order header.

- On the Sales Order screen, click the Line Items view tab, click Menu in the order header, and choose TSQ.

The order is submitted to the external fulfillment system for technical service qualification. The fulfillment system returns periodic updates. Your Siebel application displays the updates in the fields described in the table that follows.

Field	Comments
Fulfillment Status	<p>This field appears in the order header and in the order line items.</p> <p>This field displays the status of the technical service qualification request. Possible values are as follows:</p> <ul style="list-style-type: none"><li>■ <b>Pending TSQ.</b> Technical service qualification is in progress.</li><li>■ <b>Passed TSQ.</b> The order has passed technical service qualification.</li><li>■ <b>Failed TSQ.</b> The order has failed technical service qualification.</li></ul>
Status Context	<p>This field appears in the Sales Order screen, Line Items view, Line Details list.</p> <p>If the Fulfillment Status field of a line item acquires a value of Failed TSQ, this field displays an explanation of why the line item failed technical service qualification. This information comes from Oracle Application Integration Architecture.</p>

- 4 Submit the order.

For more information about submitting orders, see [“Processing a Sales Order Through Oracle Application Integration Architecture Integration” on page 40.](#)

**NOTE:** You can submit the order regardless of the Fulfillment Status value. In other words, you can submit the order whether or not the order has passed the technical service qualification.

## Transferring Service to Another Location (End User)

With asset-based ordering, employee users can use the procedure in this topic to disconnect services at one address (the move-out address) and install the same services at another address (the move-in address). If the correct service points exist at the new address for the transferred services, the services are automatically assigned to these service points. For more information about service points, see the chapters on premises and assets in *Siebel Communications Guide*.

In the procedure in this topic, you create a quote that shows the service deleted for one address and added for another address. The items displayed in the quote reflect the current configuration of the service adjusted for changes in open orders.

**NOTE:** Users can transfer a service only if the service is provisioned at a service point. The Workflow does not recognize services that are not associated with a service point.

**To transfer a service to another location**

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 Click the name of the appropriate account.
- 3 In the Account form, in the Address field, click the select button.  
The Account Addresses dialog box displays.
- 4 In the Account Addresses dialog box:
  - a If necessary, click New and add the move-in address to the Available list.
  - b If necessary, move the move-in address from the Available list to the Selected list.
  - c In the Selected list, in the record for the move-in address, in the Start Date field, enter the date on which the new address is active for invoicing purposes.
  - d In the Selected list, in the record for the move-out address, in the End Date field, enter the date on which the old address is inactive for invoicing purposes.
  - e In the Selected list, select the record for the move-in address, and click Transfer Service.

The Line Items view displays listing two copies of the service. The line items in one copy have an action code of Delete as well as a sub-action code of Move-Delete and are associated with the move-out address. The line items in the other copy have an action code of Add as well as a sub-action code of Move-Add and are associated with the move-in address.

- 5 For each service item, verify that the Service Point field displays a service item.  
If the Service Point field displays a service item, a service point is available at the move-in address.
- 6 If a service item does not display a service point, delete the item from the quote.
- 7 Convert the quote to an order and submit the order.

The action codes and sub-action codes in the quote lines also display in the order lines. For more information about converting a quote to an order and submitting an order, see *Siebel Order Management Guide*.

## Process of Managing Bulk Orders

Frequently, companies in communications and media industries must manage bulk (large quantity) orders for the products and services that they provide to customers. These companies work with bulk orders because they serve a large number of customers who can, over an extended period of time, add new products and services, change existing products and services, and remove obsolete products and services.

To manage bulk orders, users perform the following tasks:

- [“Creating a Bulk Request” on page 54](#)
- [“Importing Bulk Request Data” on page 59](#)
- [“Submitting a Bulk Request” on page 60](#)
- [“Managing Invalid Data in a Bulk Request” on page 61](#)

■ [“Viewing a Bulk Order” on page 62](#)

## Creating a Bulk Request

When you create a bulk request, you create one or more action sets. You then assign contacts, services, and actions to those action sets. You also associate each action in the action set with a base product and, if applicable, a component or upgrade product for that base product.

You submit a bulk request to automatically generate bulk orders. Each action set in a bulk request generates at least one bulk order. The contacts, services, and actions in the action set determine the line items in that bulk order. Action codes denote actions and include:

- **Add.** This code adds new products and services for an asset.
- **Update.** This code changes products and services for an asset.
- **Suspend.** This code suspends services for an asset.
- **Resume.** This code resumes services for an asset after suspension.
- **Delete.** This code deletes obsolete products and services for an asset.
- **Upgrade.** This code upgrades products and services for an asset.

The action code that you select determines the other fields related to that action in which you can enter data. In [Table 11](#), a Yes designation indicates that you can enter data in the field for the action code, and a No designation indicates that you cannot enter data in the field for the action code.

Table 11. Valid Fields for Action Codes

Action Code	Base Product	Component Product	Product Path	Attribute Name	Attribute Value	Field Name	Field Value	Upgrade Product
Add	Yes	Yes	Yes	No	No	Yes <sup>1</sup>	Yes <sup>1</sup>	No
Update	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Suspend	Yes	No	No	No	No	No	No	No
Resume	Yes	No	No	No	No	No	No	No
Delete	Yes	Yes	Yes	No	No	No	No	No
Upgrade	Yes	No	No	No	No	No	No	Yes

1. If you click the Add Items button to add multiple base products, the Field Name field displays Quantity, and the Field Value field displays the quantity that you select in the Pick Products dialog box. You cannot specify any other field names and corresponding field values for an Add action code.

This task is a step in [“Process of Managing Bulk Orders” on page 53](#).

### *To create a bulk request*

- 1 Navigate to the Bulk Requests screen, then the Bulk Requests List view.

- 2 In the Bulk Request form or the Bulk Requests List view, add a new record.

In the new form record, the Request # field is automatically populated with the bulk request number, the Notify User field defaults to your user ID, the Status field defaults to New, and the Created Date defaults to the current date and time. When you step off the record, the Request Name field is automatically populated with the bulk request number.

- 3 (Optional) Change the Request Name field to more easily identify the bulk request, enter text in the Comments field to describe the bulk request, and change the Notify User field to the ID of the user to automatically notify through email when you submit this bulk request for processing.
- 4 In the Bulk Requests list, click the Request Name field for the new bulk request to enter action sets, contacts, services, and actions.

The Bulk Request form appears. Below this form, sections for action sets, instances, and actions appear.

**NOTE:** If you copy a Bulk Request form to create a new bulk request, the action sets, contacts, services, and actions for the old bulk request are not copied to the new bulk request.

- 5 (Optional) You can click Import in the Bulk Request form or in the Bulk Requests List view to import the data from a template file and automatically populate action set, contact, service, and action fields. For more information, see [“Importing Bulk Request Data” on page 59](#).
- 6 In the Users & Actions link of the Action Sets view, add an action set for the new bulk request and complete the necessary fields.

**NOTE:** If you copy an action set to create a new action set, the contacts, services, and actions for the old action set are copied to the new action set.

Some fields are described in the following table.

Field	Description
Sequence	<p>The order in which the action set is processed. The sequence number is automatically generated, and you cannot change this field.</p> <p>By default, all action sets for a bulk request are processed at the same time (asynchronously) when you submit the bulk request to create a bulk order. The sequence number is used in processing only if you process action sets sequentially (synchronously). For more information, see <a href="#">“Changing Processing for Action Sets” on page 64</a>.</p>
Type	<p>The type of action set. Values include:</p> <ul style="list-style-type: none"> <li>■ <b>New.</b> Use this value to create a new asset. Select this value to add products and services to an asset.</li> <li>■ <b>Modify.</b> Use this value to change an existing asset. Select this value to update products and services for an asset, suspend services for an asset, resume services for an asset after suspension, and to delete obsolete products and services for an asset.</li> <li>■ <b>Upgrade.</b> Use this value to upgrade an existing asset. Select this value to upgrade products and services for an asset.</li> </ul>

Field	Description
Account	The customer account for the action set. This field is required.
Due Date	This field populates the field for the due date on the bulk order that this bulk request creates.
Active	If you want to bypass the action set the next time you submit this bulk request for processing, clear the check box in this field to set the field to N.
File Name	The name of the template that is imported to create the action set. This field has a value only if you import bulk request data. For more information, see <a href="#">"Importing Bulk Request Data" on page 59</a> .
Comment	A description of the action set.
Child Type	The type of instance (contact or service) for the action set. For an action set with a child type of either Contact ID or Service ID, the instance is an asset. Contact ID and Service ID are two ways to identify the asset.
Scope	The assets that are included in or excluded from the action set. Values include: <ul style="list-style-type: none"> <li>■ <b>All.</b> For the account in the action set, select this value to include all the assets. If you select this value, you cannot designate Contact IDs and Service IDs in <a href="#">Step 7</a>.</li> <li>■ <b>Include.</b> For the account in the action set, select this value to include only the assets identified by the Contact IDs and Service IDs that you designate in <a href="#">Step 7</a>.</li> <li>■ <b>Exclude.</b> For the account in the action set, select this value to include all the assets except for the assets identified by the Contact IDs and Service IDs that you designate in <a href="#">Step 7</a>.</li> </ul>
Status	The processing status of the action set. Values include: <ul style="list-style-type: none"> <li>■ <b>To Process.</b> The action set processing is not yet started because the bulk request is not submitted.</li> <li>■ <b>Partially Processed.</b> The action set processing is complete, but some of the data in the action set was not processed to create the bulk order.</li> <li>■ <b>Processed.</b> The action set processing is complete, and all data in the action set was processed to create the bulk order.</li> <li>■ <b>Error.</b> The action set processing failed because of an error.</li> </ul>
Valid	A value of Y in this field indicates that this action set complies with validation rules. A value of N in this field indicates that this action set does not comply with validation rules or that this action set is not yet evaluated against validation rules. An action set is evaluated against validation rules when you click the Submit button or the Validate button.

- 7 In the Instances section of the Users & Actions link for the action set, add the contacts and services applicable to the account in the action set:
  - a If the Child Type field for the action set is Contact Id, add contacts to the action set:

- ❑ To add a single contact, click New, click the select button in the Email Address field, select the contact in the dialog box, and click OK.
- ❑ To add multiple contacts, click Add Users, select the contacts in the Add Users dialog box, and click Add Selected.

**b** If the Child Type field for the action set is Service Id, add services to the action set:

- ❑ If the Instances section contains no data, click New to display the fields in the Instances section relating to services.
- ❑ To add a single service, click the select button in the Service Id field, select the service in the dialog box, and click OK.

If the action set is New, the select button in the Service Id field is not available because you are creating a new asset, and therefore you cannot select the service ID for an existing asset.

- ❑ To add multiple services, click Add Instances, select the services in the dialog box, and click Add Selected.

If the action set is New, the Add Instances button is not available because you are creating a new asset, and therefore you cannot select the services for existing assets.

**c** If you want to bypass this contact or service the next time you submit this bulk request for processing, clear the check box in the Active field for the contact or service to set the field to N.

If the Active field for the action set is set to N, this N value supersedes Y values in the Active field for all contacts and services in that action set.

**8** In Actions section of the Users & Actions link for the action set, add the actions applicable to the action set.

**NOTE:** The number in the Sequence field is important when you specify more than one action for the same product. For example, because a product must exist before you can update the product, the sequence number for an action that adds a product must be lower than the sequence number for an action that updates an attribute for that product. The sequence number is automatically generated, and you cannot change this field. If you add the actions for a product in an incorrect order, you can delete and re-add those actions to reorder them.

**a** Add the base products to the action set:

- ❑ To add a single base product, click New, click the select button in the Base Product field, select the product in the Pick Product dialog box, and click OK.
- ❑ To add multiple base products, click Add Items, enter a quantity for each product in the Pick Products dialog box, click Add to display the added products at the bottom of the dialog box, and click OK to add those products.

The Add Items button is available for selection only if you select New in the Type field for the action set.

**b** Select an action code for each base product:

- When you add a single base product, though you can select any action code, the Type field for the action set determines the valid action codes to select. If you select an invalid action code, when you submit the bulk request to create a bulk order, an error (exception) results. The following table shows the action codes that are valid for each action set type.

Action Set Type	Valid Action Codes
New	Add, Update <b>NOTE:</b> Add must come first. A subsequent Update can update the fields of the base products added by Add.
Modify	Add, Update, Suspend, Resume, Delete
Upgrade	Upgrade

- When you add multiple base products using the Add Items button, the action code for each base product is Add, and you cannot change this action code.
- If the action code is Add, Update, Delete, or Upgrade select the applicable component products:
  - To select a single component product, select the action record, click the select button in the Component Product field, select the component in the Pick Component dialog box, and click OK.

You can enter a component in the Component Product field if you select an action code of Add, Update, or Delete and if the base product has components. You cannot enter a component in this field for an Upgrade action code or for an Add action code if you use the Add Items button to create the Add action code.

When you select a component product, the Product Path field for that component product is automatically populated.

- To select one or more component products, select the action record, click Customize, select the component products, and click Done. Then, in the Action Template, click the Action Sets tab to return to the bulk request.

The Customize button is available for selection for an action code of Add or Upgrade and if the applicable product has components. If you select an Add action code, you can specify product components for the base product. If you select an Upgrade action code, you can specify product components for the upgrade product.

You can also select available attributes and fields when you click the Customize button. The component products, attributes, and fields that you select using the Customize button do not appear in the action fields. You can click the product link in the Base Product field to view the Action Template containing the selected component products, attributes, and fields. If you do not click the Customize button to select component products, attributes, and fields, clicking the product link in the Base Product field has no effect. (A new view does not appear.)

- d If the action code is Update, select the applicable attribute name and value as well as the applicable field name and value.

If you select a component product, only the attributes and fields applicable to that component product are available for selection. If you do not select a component product, only the attributes and fields applicable to the base product are available for selection.

- e If the action code is Upgrade, click the select button in the Upgrade Product field, select the product in the Pick Product dialog box, and click OK.
- f If you want to bypass an action the next time you submit this bulk request for processing, clear the check box in the Active field for the action to set the field to N.

If the Active field for the action set is set to N, this N value supersedes Y values in the Active field for all actions in that action set.

- 9 Repeat [Step 6](#) through [Step 8](#) for each action set for the bulk request.

## Importing Bulk Request Data

To save time when creating a bulk request, users can import the data from a template XML file to populate the action set, contact, service, and action fields for the bulk request. Administrators can create import templates. For more information, see [“Creating Import Template Files” on page 66](#).

This task is a step in [“Process of Managing Bulk Orders” on page 53](#).

### *To import bulk request data*

- 1 Navigate to the Bulk Requests screen, then the Bulk Requests List view.
- 2 In the Bulk Request form or the Bulk Requests List view, add a new record.

In the new form record, the Request # field is automatically populated with the bulk request number, the Notify User field defaults to your user ID, the Status field defaults to New, and the Created Date defaults to the current date and time. When you step off the record, the Request Name field is automatically populated with the bulk request number.

- 3 (Optional) Change the Request Name field to more easily identify the bulk request, enter text in the Comments field to describe the bulk request, and change the Notify User field to the ID of the user to automatically notify through email when you submit this bulk request for processing.
- 4 Click Import in the Bulk Request form or in the Bulk Requests List view.

The Import Bulk Request Template dialog box appears.

- 5 Navigate to the XML file that contains the data to import, select the file, and click Import.

The File Name field for the action set is updated with the name of the template, and other fields for action sets, contacts, services, and actions are updated with the data from the template.

- If the template file is invalid, an error message appears, and data in the file is not imported into the appropriate fields in the bulk request. Correct the file before you import the file again.

- If the template file is valid but contains some invalid data, an error message appears directing you to a file with details about the invalid data.
  - If data is validated, no data is imported into the appropriate fields in the bulk request, and all of the data is logged to this file.
  - If data is not validated, valid and invalid data is imported into the appropriate fields in the bulk request. You can correct the invalid data before you submit the bulk request for processing.

For information about setting up data validation for the import process, see [“Configuring the Import Process” on page 75](#).

- If the template file is valid and contains only valid data, no error message appears, and the valid data is imported into the appropriate fields in the bulk request.

## Submitting a Bulk Request

You submit a created bulk request to automatically generate the bulk orders for that bulk request. Each action set in a bulk request generates at least one bulk order. The contacts, services, and actions within the action set determine the line items in the bulk order. If a submitted bulk request contains invalid data, you can correct the data in the bulk request and include that data in the bulk order, or you can exclude the data in the bulk request from the bulk order. For more information, see [“Managing Invalid Data in a Bulk Request” on page 61](#).

After a user submits a bulk request, the bulk request can have one the following statuses:

- **Queued.** The bulk request processing is not yet started.
- **Processing.** The bulk request is processing to create orders.
- **Partially Complete.** The bulk request processing is complete, but some of the data in the bulk request was not processed to create orders.
- **Complete.** The bulk request processing is complete, and all of the data in the bulk request was processed to create orders.

The processing that generates the bulk orders for the bulk request can take a significant amount of time. Before this processing is complete, you can cancel the submitted bulk request to terminate processing. When you terminate processing, only some of the data in the bulk request is included in the generated bulk orders. You can later submit the bulk request again to include the unprocessed data in the bulk orders. For more information, see [“Configuring Cancellation Processing” on page 65](#).

After a user cancels a bulk request, the bulk request can have one of the following statuses:

- **Cancel Pending.** The cancellation is not complete.
- **Cancelled.** The bulk request is cancelled.

This task is a step in [“Process of Managing Bulk Orders” on page 53](#).

### *To submit a bulk request*

- 1 Navigate to the Bulk Requests screen, then the Bulk Requests List view.

- 2 Select the bulk request record from the list.
- 3 (Optional) To see if the bulk request contains invalid data, click Validate in the Bulk Requests form or in the Bulk Requests List view.

Bulk request data is validated when you click the Submit button in [Step 4](#), but if you want to correct invalid data before you submit the bulk request, click the Validate button. For more information, see [“Managing Invalid Data in a Bulk Request” on page 61](#).

- 4 Click Submit in the Bulk Requests form or in the Bulk Requests List view.

The Status field for the bulk request changes from New to the status of the submission.

- 5 To update the Status field to the current status of the submission, click Refresh in the Bulk Requests form or in the Bulk Requests List view.

The user with the ID that is in the Notify User field of the bulk request is sent an email message about the success of failure of the bulk request submission and about any invalid data in the bulk request.

- 6 To terminate processing before the processing is complete:
  - a Click Cancel Request in the Bulk Requests form or in the Bulk Requests List view.
  - b Click Refresh in the Bulk Requests form or in the Bulk Requests List view to update the Status field to the current status of the cancellation.

## Managing Invalid Data in a Bulk Request

You can check the validity of the data in a bulk request by clicking the Validate button or the Submit button. After you click either button, you can view the invalid data (exceptions) for the bulk request. However, if you click either button from the Action Sets view when you revalidate or resubmit a bulk request, you must click the Refresh button to see the invalid data. After you click the Validate button, the action set, contact, service, and action records that will be included in bulk orders have a Y in the Valid field. Likewise, after you click the Submit button, the action set, contact, service, and action records that are included in bulk orders have a Y in the Valid field.

If a submitted bulk request contains invalid data, the invalid data is not included in the generated bulk orders. You can correct this invalid data, and then resubmit the bulk request to include the corrected data in the bulk orders. The valid data in an action set of a submitted bulk request generates a bulk order. If the status of that bulk order changes from Pending or Open to another status, when you correct the invalid data in the action set and resubmit the bulk request, a second bulk order is generated for the action set.

An exception record for invalid data corresponds to an action set, a contact, a service, or an action in a bulk request. For each exception record, you can correct the data in the bulk request and include that data in the bulk order, or you can exclude the data in the bulk request from the bulk order. When you include or exclude the exception data in a bulk request, the exception record is assigned a clear date. Exception records are not deleted and continue to appear. Thus, a record with clear date indicates to a user that the exception was reviewed, while a record with no clear date indicates to a user that the record was not reviewed.

This task is a step in [“Process of Managing Bulk Orders” on page 53](#).

### *To manage invalid data in a bulk request*

- 1 Navigate to the Bulk Requests screen, then the Bulk Requests List view.
- 2 In the Bulk Requests list, click the Request Name field for the bulk request.

The Bulk Request form appears. Below this form, sections for action sets, instances, and actions appear.
- 3 Click the Exceptions link in the Action Sets view, and select an action set.

Information about invalid data for the action set appears in the Exceptions list below the Action Set list.

**NOTE:** Alternatively, if your user ID is in the Notify User field of the bulk request, you can review email messages about invalid data that are automatically sent to you when the bulk request is submitted.
- 4 In the Exceptions list, review the description of the invalid data in the Exception field.
- 5 If you want to exclude from the bulk order the bulk request data that corresponds to an exception record:
  - a Select the exception record.
  - b Click Clear.

The Clear Date field for the exception record is populated with the current date.

**NOTE:** After you click the Clear button, you can click the Reset button if you decide to include in the bulk order the bulk request data that corresponds to the exception record.
- 6 If you want to include in the bulk order the bulk request data that corresponds to an exception record:
  - a Select the exception record.
  - b Click Reset.

The Clear Date field for the exception record is populated with the current date.
  - c Correct this invalid data in the bulk request, and then revalidate or resubmit the bulk request.

If the corrected data is still invalid, another exception record appears when you revalidate or resubmit the bulk request. Valid data for a resubmitted bulk request is included in the bulk order.

**NOTE:** For an exception record that is not included in a bulk order after you click the Reset button, you can click the Clear button if you decide to exclude from the bulk order the bulk request data that corresponds to the exception record.

## Viewing a Bulk Order

When you submit a bulk request, you create bulk orders for that bulk request. You can view these bulk orders. If you use asset-based ordering, these bulk orders are used to create and modify the assets that are associated with the products and services provided to customers. For more information, see the information about asset-based ordering in *Siebel Order Management Guide*.

This task is a step in [“Process of Managing Bulk Orders”](#) on page 53.

### *To view a bulk order*

- 1 Navigate to the Bulk Requests screen, then the Bulk Requests List view.
- 2 In the Bulk Requests list, click the Request Name field for the bulk request.  
The Bulk Request form appears. Below this form, sections for action sets, instances, and actions appear.
- 3 Click the Orders link in the Action Sets view, and select an action set.  
The bulk orders that are created for that action set appear in the Orders list below the Action Set list.
- 4 Click the Order Number field to view details about the bulk order including line items and attributes of line items.

## About Bulk Order Creation

Before creating bulk orders for a bulk request, the processing logic recognizes any open orders for the base products in that bulk request. For example, if an open order exists to add a component for a customer, and if you delete that component for that customer in the bulk request, the processing logic recognizes the component as a customer asset before creating the bulk order. The resulting bulk order includes a line item to delete that component. This follow-on order is a change to the asset before the asset is fulfilled.

Also, for example, if an open order exists to disconnect an asset for a customer, and if you update that asset in the bulk request, a run time error results because you cannot update an asset that will be disconnected.

A bulk order can include a complex line item for a base product in the bulk request. Complex line items contain additional line items for the actions and component products applicable to the base product. Identical action codes and component products for a base product in a bulk request are combined to a single line item in the bulk order.

A bulk order can include product components that you do not select in the bulk request in any of the following scenarios:

- In the bulk request, you select a component with an exclude constraint. For example, if a customer wants component A, the customer cannot also have component B. If you add component A to a bulk request for a customer who currently has component B, the resulting bulk order automatically includes a line item to delete component B, even though you do not delete component B in the bulk request for the customer.

**CAUTION:** If you delete the BatchValidate step in the ABO Bulk Request - Add Sub-Process Workflow or the ABO Bulk Request - Modify Sub-Process Workflow, the exclude constraint has no effect. Consequently, in this example, the resulting bulk order does not automatically include a line to delete component B. Additionally, deleting the BatchValidate step can result in incorrect and inconsistent orders, because no rule of the iLog engine is applied to the orders.

- In the bulk request, you select a component with a require constraint. For example, if a customer wants component A, the customer must also have component B. If you add component A to a bulk request for a customer who does not currently have component B, the resulting bulk order automatically includes a line item to add component B, even though you do not add component B in the bulk request for the customer.

**NOTE:** If you delete the BatchValidate step in the ABO Bulk Request - Add Sub-Process Workflow or the ABO Bulk Request - Modify Sub-Process Workflow, the require constraint has no effect. Consequently, in this example, the resulting bulk order does not automatically include a line to add component B.

- In the bulk request, you select a component with a parent component. For example, component B is the parent component of component A. If you add component A to a bulk request, the resulting bulk order automatically includes a line item for component B, even though you do not select component B in the bulk request. However, the line item for component B has no action code in the bulk order.
- In the bulk request, you select a base product with a default component. For example component B is a default component of base product A. If you add base product A to a bulk request, the resulting bulk order automatically includes a line item for component B, even though you do not select component B in the bulk request. However, the line item for component B has no action code in the bulk order.

## Roadmap for Configuring Bulk Orders

To configure bulk orders, administrators perform the following tasks and process:

- [“Changing Processing for Action Sets” on page 64](#)
- [“Configuring Cancellation Processing” on page 65](#)
- [“Creating Import Template Files” on page 66](#)
- [“Process of Adding Custom Fields to Import Template Files” on page 68](#)
- [“Configuring Validation Rules for the Import Process” on page 74](#)
- [“Configuring the Import Process” on page 75](#)

### Changing Processing for Action Sets

By default, all action sets for a submitted bulk request are processed at the same time (asynchronously). However, an administrator can disable this parallel action set processing so that action sets for a submitted bulk request are processed sequentially (synchronously). An administrator might disable parallel action set processing if hardware resources are limited.

To change processing for action sets, the administrator changes a process property in a workflow process. Then the administrator deploys the changed workflow process. For information about changing a process property and about deploying a changed workflow process, see *Siebel Business Process Framework: Workflow Guide*.

This task is a step in [“Roadmap for Configuring Bulk Orders” on page 64](#).

**To change processing for action sets**

- 1 Log in to Siebel Tools as an administrator.
- 2 In the Object Explorer, click Revise Workflow.
- 3 In the Workflow Processes list, select ABO Bulk Request - Submit Process Workflow.
- 4 For the Parallel Process Flag process property in this workflow process, change the Default String field in the Multi Value Property Window to N to disable parallel processing for action sets or to Y to enable parallel processing of action sets.
- 5 Redeploy the workflow.

**Configuring Cancellation Processing**

A user clicks the Submit button to submit a bulk request and automatically generate bulk orders for that bulk request. Before this processing is complete, the user can click the Cancel Request button to stop this processing. When the user clicks the Cancel Request button, by default, processing completes for the action set that is currently processing. Remaining action sets in the bulk request are not processed. An administrator can configure this default behavior for cancellation processing to one of the following behaviors:

- Processing completes for the instance (contact or service) in the action set that is currently processing. In this behavior:
  - Remaining actions for the instance in the action set are processed.
  - Remaining instances in the action set are not processed.
  - Remaining action sets in the bulk request are not processed.
- Processing completes for the action in the action set that is currently processing. In this behavior:
  - Remaining actions for the instance in the action set are not processed.
  - Remaining instances in the action set are not processed.
  - Remaining action sets in the bulk request are not processed.

To configure these behaviors, the administrator defines an input argument for a step in a workflow process. This step is associated with the NextObject method in the ABO Bulk Request Processing Service. Then the administrator deploys the changed workflow process. For information about defining an input argument and about deploying a changed workflow process, see *Siebel Business Process Framework: Workflow Guide*.

This task is a step in ["Roadmap for Configuring Bulk Orders" on page 64](#).

**To configure cancellation processing**

- 1 Log in to Siebel Tools as an administrator.
- 2 In the Object Explorer, click Workflow Process.
- 3 If you want processing to complete at the instance level:



- a Click Create Worksheet in the Meta Data worksheet.

A new worksheet named Action Set 1 is created in the source file, the VersionNumber field in the new worksheet is populated with the version number from the Meta Data worksheet, and the cells in the new worksheet are populated with the field names from the schema file in the Schema File Name field of the Meta Data worksheet.

- b In the Action Set 1 worksheet, enter data in the cells under the field names.

For some fields, empty cell values are acceptable. For more information, see [“About Required XLS Source File Fields” on page 67](#).

- c Repeat [Step a](#) and [Step b](#) for each new worksheet that you want to create in the source file.

Subsequent worksheets are named Action Set 2, Action Set 3, and so on.

- 6 Click Export to XML in the Meta Data worksheet.

Each worksheet in the source file results in one XML import template file in the folder specified in the last leg of the Export File variable path in the Meta Data worksheet.

### About XLS Source File Macros

The macros in the BulkRequest.xls source file contain the following procedures:

- **ReadMetaData.** Reads the cell values for the variables in the Meta Data worksheet. You must update this procedure if you change the location of the cell values for existing variables in the Meta Data worksheet or if you add new variables to the Meta Data worksheet.
- **SetupMapping.** Inserts a new worksheet after the last worksheet in the source file, populates the VersionNumber field of the new worksheet with the version number from the Meta Data worksheet, loads the schema file from the location specified in the Schema File Name variable in the Meta Data worksheet, and calls the HeaderMap, ActionMap, and UserMap procedures to map each field name in the schema file to a cell in the new worksheet. When you click the Create Worksheet button in the Meta Data worksheet, you call this procedure.
  - **HeaderMap.** Maps the field names from the schema file to the action set section of the new worksheet. The SetupMapping procedure calls this procedure.
  - **ActionMap.** Maps the field names from the schema file to the action section of the new worksheet. The SetupMapping procedure calls this procedure.
  - **UserMap.** Maps the field names from the schema file to the instances section of the new worksheet. The SetupMapping procedure calls this procedure.
- **ExportXML.** Iterates through the worksheets in the source file, and exports each exportable action set worksheet to an XML file. Each XML filename begins with the filename specified in the last leg of the Export File variable path in the Meta Data worksheet. Each XML filename ends with an index number (for example, 1, 2, 3, and so on) that corresponds to the action set number for the worksheet from which the XML file is generated. When you click the Export to XML button in the Meta Data worksheet, you call this procedure.

### About Required XLS Source File Fields

The XLS source file must contain the fields listed in the following 4 sections:

- **First Section.** Include the following field: VersionNumber. The version number of the import template files.
- **Second Section.** At a minimum, include the following fields:
  - Sequence. The sequence number for the action set.
  - Type. The type of action set, for example, New, Modify, or Update.
  - CustomerAccount. The name of the customer account for the action set.
  - ChildType. The type of instance for the action set, for example, Contact Id or Service Id. You must include this field only if you include the Service Id field in the fourth section. Otherwise, this field defaults to a value of Contact Id for the records that you import into the application.
- **Third Section.**
  - At a minimum, include the following fields:
    - ActionSequence. The sequence number for the action.
    - ActionName. The name of the action, for example, Add, Update, Suspend, Resume, Delete, or Upgrade.
    - BaseProduct. The base product for the action.
  - Additional fields apply to some actions. For more information about the following fields to include, see [Table 11](#) in “[Submitting a Bulk Request](#)” on page 60:
    - Component. The component product for the base product.
    - Attribute. The attribute for the base product or component product.
    - Field. The field for the base product or component product.
    - AttributeValue. The value of the attribute.
    - FieldValue. The value of the field.
    - UpgradeProduct. The product to which the base product is upgraded.
- **Fourth Section.** At a minimum, include one of the following fields:
  - Email. The email address of the contact who is associated with an asset. You must include this field if the ChildType field is Contact Id or if the source file has no ChildType field.
  - ServiceId. The service ID of an asset. You must include this field if the ChildType field is Service Id.

## Process of Adding Custom Fields to Import Template Files

To add custom fields to import template files, administrators perform the following tasks:

- 1 [“Adding Custom Fields to Business Components” on page 69.](#)
- 2 [“Adding Custom Fields to Integration Components” on page 70.](#)

- 3 Generate the schema for the integration object for importing bulk requests. For more information, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.
- 4 [“Setting Up the Version Number for Import Template Files” on page 70.](#)
- 5 [“Updating the XLS Source File” on page 71.](#)

Then, use the new XLS source file and the new schema file and to create the new import template files that contain the custom fields. For more information, see [“Creating Import Template Files” on page 66.](#)

This process is a step in [“Roadmap for Configuring Bulk Orders” on page 64.](#)

## Adding Custom Fields to Business Components

An administrator can add new fields to bulk requests to accommodate business needs. The administrator must add the new fields to the appropriate business components. The business components to which you might want to add fields include:

- ABO Bulk Request - Orders
- ABO Bulk Request Action Field Names
- ABO Bulk Request Action Set
- ABO Bulk Request Action Set - Simple
- ABO Bulk Request Action Set Orders
- ABO Bulk Request Actions
- ABO Bulk Request Actions - Simple
- ABO Bulk Request Exceptions
- ABO Bulk Request Header
- ABO Bulk Request Header - Simple
- ABO Bulk Request Instance
- ABO Bulk Request Instance - Simple

This task is a step in [“Process of Adding Custom Fields to Import Template Files” on page 68.](#)

### *To add custom fields to business components*

- 1 Log in to Siebel Tools as an administrator.
- 2 In the Object Explorer, click Business Component.
- 3 In the Business Components list, select the business component to which you want to add the new field.
- 4 Lock this business component so that you can change it.
- 5 In Object Explorer, navigate to Business Component, then the Field, and in the Fields list, add the new field to the business component.
- 6 Compile the object for your changes into the Siebel Repository File (SRF).

- 7 Unlock the business component.

## Adding Custom Fields to Integration Components

After you add custom fields to business components, you must add those fields to the appropriate integration components on the integration object for the import template file. You can add fields to the following integration components:

- ABO Bulk Request Action Set
- ABO Bulk Request Instance
- ABO Bulk Request Actions

This task is a step in [“Process of Adding Custom Fields to Import Template Files”](#) on page 68.

### *To add custom fields to integration components*

- 1 Log in to Siebel Tools as an administrator.
- 2 In the Object Explorer, click Integration Object.
- 3 In the Integration Objects list, select ABO Bulk Request Import integration object.
- 4 Lock this integration object so that you can change it.
- 5 In Object Explorer, navigate to Integration Object, then the Integration Component.
- 6 In the Integration Components list, select the integration component to which you want to add new fields.
- 7 In Object Explorer, navigate to Integration Object, then the Integration Component, then the Integration Component Field.
- 8 In the Integration Component Fields list, add the custom fields to the integration component.
- 9 Compile the object for your changes into the Siebel Repository File (SRF).
- 10 Unlock the integration object.

## Setting Up the Version Number for Import Template Files

Each set of import template files that the administrator creates must have the same version number. Though any prior template versions are still available, you set the version number for the new templates to make sure that users can access only the new import template files to create bulk requests.

This task is a step in [“Process of Adding Custom Fields to Import Template Files”](#) on page 68.

### *To set the version number for import template files*

- 1 Navigate to the Administration - Application screen, then the System Preferences view.
- 2 Query for Bulk Request Template Version in the System Preference Name field.

- 3 Change the version number in the System Preference Value field to the version number for the new import template files.

## Updating the XLS Source File

If an administrator changes bulk requests to include new custom fields, the administrator must also change the XLS source file that creates the XML import template files that users complete to import data into those bulk requests. To update the XLS source file, you update the Meta Data worksheet and the macro procedures in that file.

This task is a step in [“Process of Adding Custom Fields to Import Template Files”](#) on page 68.

### *To update the XLS source file*

- 1 Open the XLS source file.
- 2 Update the meta data for the file. In the Meta Data worksheet:
  - a Change the number in the Version Number field to the new version number for the import template files.
  - b If you change the name or location of the schema file, change the Schema File Name variable.
  - c If you change the name or location of the export file, change the Export File variable.
- 3 Update the macro procedures by navigating to Tools, then Macro, then Macros, selecting any macro name, and clicking Edit.

- 4 If you add a field to a bulk request action set business component, update the HeaderMap procedure by adding the following code:

```
Range("<title cell reference>").Select
ActiveCell.FormulaR1C1 = "<field name>"
ActiveCell.Font.Bold = True
Set xp = ActiveSheet.Range("<value cell reference>").XPath
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet/<field name>"
xp.SetValue myMap, strXPath
```

where:

*title cell reference* is the reference of the worksheet cell that will contain the name of the new action set field.

*value cell reference* is the reference for the worksheet cell that will contain the value of the new action set field.

*field name* is the name of the new action set field.

For example, to add a new action set field named Custom, the code is as follows:

```
Range("E4").Select
ActiveCell.FormulaR1C1 = "Custom"
ActiveCell.Font.Bold = True
Set xp = ActiveSheet.Range("E5").XPath
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet/Custom"
xp.SetValue myMap, strXPath
```

- 5 If you add a field to a bulk request action business component, update the ActionMap procedure:
- a Update the range of worksheet cells that will contain the action fields in the following code:

```
Range("<first cell title reference>:<last cell title reference>").Select
Set myMap = ActiveWorkbook.XmlMaps(mapName)
Set actionList = ActiveSheet.ListObjects.Add
```

where:

*first cell title reference* is the reference for the worksheet cell that will contain the name of the first action field.

*last cell title reference* is the reference for the worksheet cell that will contain the name of the last action field.

For example, if 10 fields exist in the action set, the first line of code might be:

```
Range("A7: J7").Select
```

- b** Add the following code for the new action field:

```
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet
/ListOfAboBulkRequestActions/AboBulkRequestActions/<field name>"
actionList.ListColumns(<column number>).XPath.SetValue myMap, strXPath
Range("<title cell reference>").Value = "<field name>"
```

where:

*field name* is the name of the new action field.

*column number* is the number of the worksheet column for the new action field.

*title cell reference* is the reference of the worksheet cell that will contain the name of the new action field.

For example, to add a new field named Custom, the code is as follows:

```
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet
/ListOfAboBulkRequestActions/AboBulkRequestActions/Custom"
actionList.ListColumns(10).XPath.SetValue myMap, strXPath
Range("J7").Value = "Custom"
```

- 6** If you add a field to a bulk request instance business component, update the UserMap procedure:

- a** Update the range of worksheet cells that will contain the instance fields in the following code:

```
Range("<first cell title reference>:<last cell title reference>").Select
Set myMap = ActiveWorkbook.XmlMaps(mapName)
Set userList = ActiveSheet.ListObjects.Add
```

where:

*first cell title reference* is the reference for the worksheet cell that will contain the name of the first instance field.

*last cell title reference* is the reference for the worksheet cell that will contain the name of the last instance field.

For example, if 3 fields exist in the action set, the first line of code might be:

```
Range("K7: M7").Select
```

- b** Add the following code for the new instance field:

```
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader  
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet  
/ListOfAboBulkRequestInstance/AboBulkRequestInstance/<field name>  
userList.ListColumns(<column number>).XPath.SetValue myMap, strXPath  
Range("<title cell reference>").Value = "<field name>"
```

where:

*field name* is the name of the new instance field.

*column number* is the number of the worksheet column for the new instance field.

*title cell reference* is the reference of the worksheet cell that will contain the name of the new instance field.

For example, to add a new field named Custom, the code is as follows:

```
strXPath = "/Siebel Message/ListOfAboBulkRequest/AboBulkRequestHeader  
/ListOfAboBulkRequestActionSet/AboBulkRequestActionSet  
/ListOfAboBulkRequestInstance/AboBulkRequestInstance/Custom"  
userList.ListColumns(4).XPath.SetValue myMap, strXPath  
Range("N7").Value = "Custom"
```

## Configuring Validation Rules for the Import Process

Validation rules for the import process ensure that the data imported from a template file to the bulk request fields meets certain criteria. An administrator might set up a new validation rule if the administrator creates a new instance type. The available instance types are contact and service. An administrator might change an existing validation rule if the administrator changes the business component name that the rule uses.

This task is a step in ["Roadmap for Configuring Bulk Orders"](#) on page 64.

### *To configure a validation rule for the import process*

- 1** Log in to Siebel Tools as an administrator.
- 2** In the Object Explorer, click Integration Object.
- 3** In the Integration Objects list, select the ABO Bulk Request Import integration object.
- 4** Lock this integration object so that you can change it.
- 5** In Object Explorer, navigate to Integration Object, then Integration Object User Prop.
- 6** If you change the name of the business component for an existing validation rule, change the business component name in the Value field of the appropriate ABO BR Validate BC user property for the existing rule.
- 7** To add a new validation rule:
  - a** Add an ABO BR Validate BC # user property, where # is the next available number for a new validation rule.
  - b** Enter the applicable business component name in the Value field for the user property.

- c In Object Explorer, click Business Component.
- d In the Business Components list, select the business component that you entered in the new validation rule.
- e Lock this business component so that you can change it.
- f In Object Explorer, navigate the Business Component, then Business Component User Prop.
- g In the Business Component User Properties list, add the user properties in the following table to define the details of the validation rule.

User Property	Value
ABO BR Validation Rule #: Criteria	The search specifications used to query the business component. The query must return only one record.
ABO BR Validation Rule #: Error Code	The error code for the error text to append to the following standard message: [Field Name] [Field Value] is not valid.
ABO BR Validation Rule #: Return Field	The field to populate with the ROW_ID of the returned record.
ABO BR Validation Rule #: Validate Fields	The fields in the business component to validate.

- 8 Compile the objects for your changes into the Siebel Repository File (SRF).
- 9 Unlock the integration object and the business component.

## Configuring the Import Process

An administrator can configure the import process to:

- Validate the data in the import file.  
By default, the data in the import file is not validated.
- Not allow users to click the name of the template in the File Name field for an action set to access an imported template file.  
By default, users can click the name of the template to access the imported template file. If users import multiple template files for the action sets in a bulk order, users can access only the template file that was last imported.
- Recognize a new name for the import workflow process that an administrator creates.

This task is a step in [“Roadmap for Configuring Bulk Orders”](#) on page 64.

### *To configure the import process*

- 1 Log in to Siebel Tools as an administrator.

- 2 In the Object Explorer, click Workflow Process.
- 3 In the Workflow Processes list, select ABO Bulk Request Import Workflow.
- 4 To validate the data in the import file, configure the process properties for this workflow process:
  - a For the To Validate Flag process property, change the Default String field in the Multi Value Property Window to Y.
  - b For the Log File process property, change the Default String field in the Multi Value Property Window to the path to the import log file.

For information about changing a process property and about deploying a changed workflow process, see *Siebel Business Process Framework: Workflow Guide*.
- 5 In the Object Explorer, click Applet.
- 6 In the Applets list, select ABO Bulk Request List Applet.
- 7 Select Tools, then Lock Project so that you can change the applet.
- 8 Navigate to Applet, then Applet User Prop in Object Explorer, and configure the user properties for this applet:
  - a To not allow users to click the name of the template in the File Name field for an action set to access the imported template file, change the Value field to N for the Attach File user property.
  - b To recognize a new name for an import workflow process that you create, change the Value field to the new name of the import workflow process in the Import Workflow user property.
- 9 Compile the object for your changes into the Siebel Repository File (SRF).
- 10 Select Tools, then Unlock Project.

## Process of Managing Prepaid Services

Customers of telecommunications companies often pay for a service before actually using that service. Subsequently, the prepaid balance in the customer account is automatically decreased as the customer uses the service. Periodically, the customer replenishes the account balance to ensure uninterrupted service. A prepaid service is sometimes referred to as pay-as-you-go service. Customers might want to prepay for service because they use the service sporadically or because they want to avoid entering into a long term contractual relationship with the company.

To manage prepaid services, perform the following tasks:

- [“Designating Prepaid Services for Products and Promotions” on page 77](#)
- [“Setting Up a Billing Profile for Prepaid Services” on page 77](#)
- [“Topping Up a Balance for an Installed Asset” on page 78](#)
- [“Viewing Prepaid Transaction Details” on page 81](#)

## Designating Prepaid Services for Products and Promotions

To set up prepaid services, administrators must designate the products and the product promotions to which prepaid services apply. When a user manages prepaid services, the user can view only the installed assets that are associated with the products and product promotions to which prepaid services apply.

This task is a step in [“Process of Managing Prepaid Services”](#) on page 76.

### *To designate prepaid services for products*

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, select the product for which you want to designate a prepaid service.  
The form for the Detail view of the product appears below the Products list.
- 3 In the form, change the Payment Type field to Prepaid.

You can also designate prepaid services for product promotions.

### *To designate prepaid services for product promotions*

- 1 Navigate to the Administration - Product screen.
- 2 In the link bar, click Product Promotions.
- 3 In the Product Promotions list, select the promotion for which you want to designate a prepaid service.  
The form for the More Info view of the product promotion appears below the Product Promotions list.
- 4 In the form, change the Payment Type field to Prepaid.

## Setting Up a Billing Profile for Prepaid Services

To set up prepaid services, a user must set up the customer billing profile for prepaid services.

This task is a step in [“Process of Managing Prepaid Services”](#) on page 76.

### *To set up a billing profile for prepaid services*

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the Name field for the account.
- 3 Click the Profiles view tab.

- 4 In the link bar of the Profiles view, click Billing Profile.

The Billing Profile list appears.

Alternatively, you can display the Billing Profile list if you navigate to the Billing Data Administration screen, then the Profiles view, select an account in the Billing Accounts list, and click the Billing Profile view tab.

- 5 Select an existing profile or create a new billing profile:
  - a Select Prepaid in the Payment Type field.
  - b Select the Auto Top-Up check box to indicate that the account is automatically replenished when the account balance decreases to a threshold amount that you specify.
- 6 Enter replenishment details for the account in the Top-Up Preference form that appears below the Billing Profile list. Some fields are described in the following table.

Field	Description
Top-Up Amount	When the account is replenished, the amount by which to replenish the account.
U/M	The unit of measurement for the top-up amount (for example, minutes or currency).
Threshold Amount	When the account balance decreases to this amount, the account is replenished.
Threshold UOM	The unit of measurement for the threshold amount (for example, minutes or currency).
SMS Notification	Check this box to notify the contact for the account when the account is replenished.
Frequency	<p>The interval in which a billing application automatically reviews the threshold amount to determine if the account balance needs replenishment. The billing application executes the replenishment.</p> <p>If you select the Auto Top-Up check box in <a href="#">Step 5</a>, this field value has no effect because the account is automatically replenished when the account balance decreases to the threshold amount.</p>

## Topping Up a Balance for an Installed Asset

By creating a top-up request, a user can add currency and usage units (for example, phone minutes) to the balance that is associated with an installed asset. When a user creates a top-up request, the user selects a top-up method, such as Credit Card, Automatic Debit, Complimentary, Voucher, or Promotion.

To top up the currency balance for an installed asset, the customer frequently prepays for services with a credit or debit card. In this scenario, the user selects a top-up method of Credit Card or Automatic Debit. The user can select a method of Complimentary, Voucher, or Promotion to top up either the currency balance or the usage unit balance for an installed asset.

This task is a step in [“Process of Managing Prepaid Services”](#) on page 76.

***To top up the balance for an installed asset***

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the Name field for the account.
- 3 Click the Account Summary - Prepaid view tab.
- 4 In the Installed Assets list, select the asset for which you want to top up the balance.  
**NOTE:** The assets that can appear on this list are those assets that are associated with products to which prepaid services apply. For more information, see [“Designating Prepaid Services for Products and Promotions”](#) on page 77.
- 5 In the Top-Up Requests list, click New to create a top-up request.

The Prepaid Service Popup Form Applet appears.

Alternatively, you can display the Prepaid Service Popup Form Applet if you navigate to the Assets screen, click List in the link bar, click the Asset # field for the asset for which you want to top up the balance, click the Top-Up Requests view tab, and click New to create a top-up request.

6 Enter data in the form fields. Some fields are described in the following table.

Field	Description
Method	<p>The means by which to top up the balance for the installed asset. The method that you select determines the additional fields in which you can enter data. Values include:</p> <ul style="list-style-type: none"> <li>■ <b>Complimentary.</b> Use this method to provide a complimentary top-up amount to the customer. If you select this method, you cannot enter a value in the Promotion Code field, the Voucher No field, the Credit Card Information fields, and the Automatic Debit Card Information fields.</li> <li>■ <b>Voucher.</b> Use this method if a voucher allows for the top-up amount. If you select this method, you can enter a value in the Voucher No field, but you cannot enter a value in the Promotion Code field, the Credit Card Information fields, and the Automatic Debit Card Information fields.</li> </ul> <p>After you enter a value in the Voucher No field, click Validate Voucher to populate the Amount field with the amount for the voucher number.</p> <ul style="list-style-type: none"> <li>■ <b>Promotion.</b> Use this method if a company promotion allows for the top-up amount. If you select this method, you can enter a value in the Promotion Code field, but you cannot enter a value in the Voucher No field, the Credit Card Information fields, and the Automatic Debit Card Information fields.</li> <li>■ <b>Credit Card.</b> Use this method if the customer pays the top-up amount with a credit card. If you select this method, you can enter a value in the Credit Card Information fields, but you cannot enter a value in the Promotion Code field, the Voucher No field, and the Automatic Debit Card Information fields.</li> <li>■ <b>Automatic Debit.</b> Use this method if the customer pays the top-up amount with a debit card. If you select this method, you can enter a value in the Automatic Debit Card Information fields, but you cannot enter a value in the Promotion Code field, the Voucher No field, and the Card Information fields.</li> </ul>
Status	<p>The status of the top-up request. Values include:</p> <ul style="list-style-type: none"> <li>■ <b>New.</b> The top-up request is not yet submitted to the billing application.</li> <li>■ <b>Submitted.</b> The top-up request is submitted to the billing application.</li> <li>■ <b>Rejected.</b> The billing application rejected the amount of the top-up request.</li> <li>■ <b>Completed.</b> The billing application accepted the amount of the top-up request.</li> </ul>
U/M	The unit of measurement for the top-up amount (for example, minutes or currency).
Amount	The top-up amount.

7 Click Submit to submit the top-up request to the billing application.

The top-up request appears in the Top-Up Requests list.

## Viewing Prepaid Transaction Details

A user may have a prepaid account. For billing accounts, a user can view prepaid account details including recent top-up requests, balances, and usage activities.

When viewing prepaid account details, the user must click the Refresh button to retrieve up-to-date data from the billing application.

This task is a step in [“Process of Managing Prepaid Services” on page 76](#).

### *To view balance and usage activity*

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the Name field for the account.
- 3 Click the Account Summary - Prepaid view tab.
- 4 In the Installed Assets list, select the asset for which you want to view prepaid account details:
  - To view top-up request activity, click Refresh in the Top-Up Requests list.  
Alternatively, to view top-up request activity, you can navigate to the Assets screen, click List in the link bar, click the Asset # field for the asset for which you want to view top-up requests, and click the Top-Up Requests view tab.
  - To view currency balances, click Refresh in the Current Balance area of the screen.
  - To view usage activity, click Refresh in the Usage list.

## Process of Configuring Prepaid Services

Data from a billing application appears in the Siebel application in applets for top-up requests, current account balances, and usage activity for an account. To retrieve this data from the billing application, administrators perform the following tasks:

- 1 [“Creating Outbound Web Services” on page 81](#)
- 2 [“Configuring Virtual Business Components” on page 82](#)
- 3 [“Importing Outbound Web Services into the Siebel Application” on page 84](#)

## Creating Outbound Web Services

To retrieve data from a billing application, the administrator must create WSDL files in the billing application. Then, the administrator uses these WSDL files to create outbound Web services. Each outbound Web service consists of an outbound proxy business service and a Web service administration document (an XML file) that contains run-time data about the Web service for the billing application.

This task is a step in [“Process of Configuring Prepaid Services” on page 81](#).

### *To create an outbound Web service*

- 1 Perform the following tasks in the billing application:
  - a Identify the request and response integration objects.
  - b Create XSD files for these integration objects.
  - c Use the XSD files to create WSDL files.
- 2 Log in to Siebel Tools as an administrator.
- 3 In the Object Explorer, click Project, and create a new project.  
Optionally, you can use the Prepaid Service 8.1 project.
- 4 Lock the project so that you can change it.
- 5 Select File, then New Object... to display the New Object Wizards.
- 6 Select the EAI tab, and then double-click Web Service.  
The WSDL Import Wizard appears. Do the following:
  - a Select your project.
  - b Specify the WSDL document that contains the Web service or Web service definition to import.
  - c Specify the file that will store the run-time data extracted from the WSDL document, or accept the default.
  - d Specify the log file that will store the errors, warnings, and other information for the import process, or accept the default.
  - e Click Next to view and verify your import information.
  - f Click Finish to complete the process of importing the business service into the Siebel repository.
- 7 After you create all of the proxy business services, compile the proxy business services into the Siebel Repository File, Siebel\_sia.srf.
- 8 Unlock your project.

## Configuring Virtual Business Components

After the administrator creates the proxy business services, the administrator enters the data in these proxy business services into the virtual business components that retrieve and display data from the billing application. For information about creating proxy business services, see [“Creating Outbound Web Services” on page 81](#).

The administrator configures the following virtual business components:

- Prepaid Service - All Activities
- Prepaid Service - Current Balance
- Prepaid Service - Top Up Request
- Prepaid Service - Top Up Request Popup

■ Prepaid Service - Top Up Request (Assets)

This task is a step in ["Process of Configuring Prepaid Services"](#) on page 81.

***To configure the virtual business components***

- 1 Log in to Siebel Tools as an administrator.
- 2 For each proxy business service that you create:
  - a In the Object Explorer, navigate to Business Service, select the proxy business service, and note the name for the proxy business service.
  - b In the Object Explorer, navigate to Business Service, then Business Service Method, and note the method name for the proxy business service.
  - c In the Object Explorer, navigate to Business Service, then Business Service Method, then Business Service Method Arg, and note the name of the input and output argument for the method for the proxy business service.

The input and output arguments have a value of Integration Object in the Data Type field. The input argument name is the request type, and the output argument name is the response type.

- 3 For each Prepaid Service virtual business component:
  - a In Object Explorer, navigate to Business Component, select a Prepaid Service virtual business component.
  - b Lock the business component so that you can change it.
  - c In Object Explorer, navigate to Business Component, then Business Component User Prop, and configure the following user properties:
    - For the Proxy BS Name user property and the Proxy BS Name: Validate user property, enter in the Value field the business service name that you noted in [Step 2](#).
    - For the Proxy BS Method user property and the Proxy BS Method: Validate user property, enter in the Value field the method name that you noted in [Step 2](#).
    - For the Proxy BS Param: Request Message Type user property and the Proxy BS Param: Request Message Type: Validate user property, enter in the Value field the input argument name that you noted in [Step 2](#).
    - For the Proxy BS Param: Response Message Type user property and the Proxy BS Param: Response Message Type: Validate user property, enter in the Value field the output argument name that you noted in [Step 2](#).
  - d Compile the Prepaid Service virtual business components for your changes into the Siebel Repository File, Siebel\_sia.srf.
  - e Unlock the business component.

## Importing Outbound Web Services into the Siebel Application

When the administrator creates the an outbound Web service, a Web service administration document (an XML file) that contains run-time data about the Web service for the billing application is created. For information about creating outbound Web services, see [“Creating Outbound Web Services” on page 81](#). The administrator must import this Web service administration document into the run-time database for the Siebel application.

This task is a step in [“Process of Configuring Prepaid Services” on page 81](#).

### *To import Web Outbound Services into the Siebel application*

- 1 Restart the Siebel Server with the recompiled version of the SRF that includes the new objects that you create using the WSDL Import Wizard.
- 2 Navigate to the Administration - Web Services screen, then the Outbound Web Services view.
- 3 For each Web service administration document:
  - a In the Outbound Web Services list applet, click Import.  
The EAI Web Service Import dialog box appears.
  - b Specify the Web service administration document that you created using the Web Services Import Wizard.
  - c Click Import to import the Web service definition into the run-time database.

## Adding Special Rating Items to a Quote or Order

Siebel Order Management for Industry Applications supports a friends and family feature that allows your customers to have unlimited calling to the numbers they identify. A *special rating product* is a product record that defines a friends and family plan and its characteristics. A *special rating list* specifies the phone numbers of the designated family and friends plan members.

You can add special a special rating product to a quote or sales order, and associate a special rating list with that product. When you associate a special rating list with a special rating product in a sales order, you set up the friends and family plan specified in the product for the phone numbers on the list.

To add special rating items to a quote or sales order, perform the following tasks:

- [“Adding Special Rating Items to a Quote” on page 85](#)
- [“Adding Special Rating Items to a Sales Order” on page 85](#)

**NOTE:** Before performing these procedures, you must create special rating products and special rating lists. For more information about creating special rating products and special rating lists, see the chapter on profiles in *Siebel Communications Guide*.

## Adding Special Rating Items to a Quote

To add a special rating product and a special rating list to a quote, follow this procedure.

### *To add special rating items to a quote*

- 1 Follow the steps for creating a quote as described in the chapter on creating a quote or sales order in *Siebel Order Management Guide*.
- 2 Associate the appropriate service account with the quote.
- 3 In the Line Items list, add a special rating product to the quote as a line item.
- 4 Assign a special rating list to the special rating product by making a selection in the Special Rating List field of the special rating product line item.

**NOTE:** You can create a new special rating list in the pick list of the Special Rating List field by clicking the New button. You can then add special rating items to the new special rating list by drilling down on the Special Rating List field of the order line item. For more information about creating a special rating list, see the chapter on profiles in *Siebel Communications Guide*.

- 5 In the quote, make sure the following conditions apply:
  - If a service bundle includes a component product with its Billing Type set to Special Rating, there must be at least one other component product with its Billing Type set to Subscription.
  - A special rating product has a Billing Service Type of null. Hence, all components with a Billing Type of Special Rating must have the same Billing Service Type (that is, null).
  - For each special rating product, the number of items in its associated special rating list must not exceed the maximum list items defined in the special rating product.
- 6 In the quote form, click Verify.  
Siebel CRM verifies the accuracy of the special rating product in the context of the service bundle.
- 7 After confirming the accuracy of the quote, you can click Auto Order to convert the quote to an order.

## Adding Special Rating Items to a Sales Order

To add a special rating product and a special rating list to a sales order, follow this procedure.

### *To add special rating items to a sales order*

- 1 Follow the steps for creating an order as described in the chapter on creating a quote or sales order in *Siebel Order Management Guide*.
- 2 Associate the appropriate service account with the sales order.
- 3 In the Line Items list, add a special rating product to the order as a line item.

- 4 Assign a special rating list to the special rating product by making a selection in the Special Rating List field of the special rating product line item.

**NOTE:** You can create a new special rating list in the Special Rating List field pick list by clicking the New button. You can then add special rating items to the new special rating list by drilling down on the Special Rating List field of the order line item. For more information about creating a special rating list, see the chapter on profiles in *Siebel Communications Guide*.

- 5 In the order, make sure the following conditions apply:
  - If a service bundle includes a component product with its Billing Type set to Special Rating, there must be at least one other component product with its Billing Type set to Subscription.
  - A special rating product has a Billing Service Type of null. Hence, all components with a Billing Type of Special Rating must have the same Billing Service Type (that is, null).
  - For each special rating product, the number of items in its associated special rating list must not exceed the maximum list items defined in the special rating product.
- 6 In the order form, click Menu and choose Verify.

Siebel CRM verifies the accuracy of the special rating product in the context of the service bundle.

- 7 After confirming the accuracy of the order, click Submit to process the order.

When the special rating product line item is completed and auto-asseted, Siebel CRM associates the special rating product with the asset. The Special Rating List Id field of the asset is populated by the ID of the associated special rating list.

## About Managing Order Fallout

*Order fallout* refers to orders that could not be fulfilled and failed to go through the billing or provisioning process. Alternatively, such an order may be referenced as an *order failure*. The Order Fallout Management functionality of Siebel CRM applies only to orders that fail *after* the order is submitted by Siebel CRM to external applications such as billing or provisioning systems. (Within the Siebel CRM order capture process, any issue with an In Progress order is captured and managed internally by Siebel CRM.) The Order Fallout Management functionality of Siebel CRM supplies a Web service to create trouble tickets for orders that fail in the external systems, and a view that displays order failure information.

Order fallout management is composed of the following phases:

**Detection.** An order is identified as a fallout order. The order is marked and information about the order is captured in a repository.

**Notification.** Individuals or systems in charge of correcting, reprocessing, or resubmitting the fallout orders are notified.

**Correction.** Corrective measures are taken automatically or manually. Fallout orders can also be discarded. A fallout order may be discarded because a corrected order was already resubmitted, because the user is expected to submit a new order, or because of other reasons.

**Resubmission.** After correction, the order is resubmitted. The process of resubmitting the order can start at the point of failure, at the beginning of the flow, or at an intermediate checkpoint.

The Correction and Resubmission phases are often identified collectively as **Recovery**.

In an integrated order management and fulfillment system, orders may fail in multiple places, such as the following:

- Fulfillment systems (such as Oracle Communications Billing and Revenue Management, and provisioning applications) processing an order component
- Order Lifecycle Management system (OSM Fulfillment)
- Oracle Application Integration Architecture services
- FMW infrastructures

In an integrated order management and fulfillment system, orders can fail for numerous reasons, as listed in [Table 12](#).

Table 12. Reasons for Order Failure

Reason	Description	Comments
Oracle Application Integration Architecture services error	Validation, transformation, and other errors occur in Oracle Application Integration Architecture services.	Generates an Oracle Application Integration Architecture fault message. Also generates an order failure notification, which is delivered by Oracle Application Integration Architecture to the Order Fallout Management system of Siebel CRM.
Infrastructure error in FMW	Errors related to delivery are not included, because guarantee of delivery is supported by the FMW infrastructure.	Generates an Oracle Application Integration Architecture fault message. Also generates an order failure notification, which is delivered by Oracle Application Integration Architecture to the Order Fallout Management system of Siebel CRM.
Data error from a fulfillment system	Missing or incorrect data is detected during initial validation by an external fulfillment system.	Generates an Oracle Application Integration Architecture fault message. Also generates an order failure notification, which is delivered by Oracle Application Integration Architecture to the Order Fallout Management system of Siebel CRM.

Table 12. Reasons for Order Failure

Reason	Description	Comments
Processing error from a fulfillment system	The order component is accepted by an external fulfillment system, but the fulfillment system is not able to process the order.	Generates an Oracle Application Integration Architecture fault message. Also generates an order failure notification, which is delivered by Oracle Application Integration Architecture to the Order Fallout Management system of Siebel CRM.
Functional error from a fulfillment system	The order component is accepted by an external fulfillment system. The fulfillment system is able to process the order, but the result is unexpected.	Generates an order failure notification, which is delivered by Oracle Application Integration Architecture to the Order Fallout Management system of Siebel CRM.

When an order failure is detected in an external system, it generates a trouble ticket in Siebel CRM. An order fallout-generated trouble ticket contains information about the failed order. If order capture and order fallout functionalities are present in the same Siebel CRM instance, the order fallout-generated trouble ticket is linked to the failed order.

As part of the correction process, the trouble ticket can be updated in Siebel CRM. Correction of a failed order can be done locally (in the fulfillment system where the order failed) or in Siebel CRM. In all cases involving correction of a failed order, a user must change the order status from Failed to either Cancelled (in which case no further processing occurs) or In Progress (in which case order processing resumes).

In Siebel CRM, correction of a failed order typically involves entering missing information or modifying incorrect information either in the order header, the order line items, or a related record such as the Billing Profile, then resubmitting the order as an order revision. The revised order goes back to the fulfillment system through the integration.

For more information about order fallout-generated trouble tickets, see the chapter on service requests and trouble tickets in *Siebel Communications Guide*.

## Viewing Fallout Orders and Order Line Items

To view order and order line item fallout information, follow this procedure.

This procedure describes order and order line item information that is specific to the Order Fallout Management functionality of Siebel CRM. For more information about viewing orders, editing orders, and submitting order revisions, see the chapter on asset-based ordering in *Siebel Order Management Guide*.

**To view order and order line item fallout information**

- 1 Navigate to the Sales Order screen, then the Sales Order List view.
- 2 Query for the order with the fallout information you want to view.
- 3 Click the link in the Order # field.
- 4 Click the Line Items view tab.
- 5 In the Sales Order form near the top of the screen, view the order fallout information associated with the current order. Some fields are described in the following table.

Field	Comments
Cancel Reason	Reason for cancelling an already-submitted order.
Status	The following pick list values are related to order line item fallout: <ul style="list-style-type: none"> <li>■ <b>Suspend.</b> Order line is suspended in the fulfillment system</li> <li>■ <b>In Progress.</b> Order line is in progress in the fulfillment system.</li> </ul>
Job Type	Indicates the type of job that has failed. Applicable to bulk orders only. Values are as follows: <ul style="list-style-type: none"> <li>■ <b>Homogeneous.</b> All the orders in the job are similar to each other.</li> <li>■ <b>Heterogeneous.</b> Different types of orders exist in the same job.</li> <li>■ <b>3rd Party Homogeneous.</b> Like Homogeneous, but originating from an external source (for example, a partner).</li> <li>■ <b>3rd Party Heterogeneous.</b> Like Heterogeneous, but originating from an external source (for example, a partner).</li> <li>■ <b>Correlated.</b> The job contains interdependent orders. The failure of one order will typically trigger the failure of multiple other orders.</li> </ul>
Back Office Error Text	Text of the order failure message from the external fulfillment system.

- 6 Scroll down to the Line Items list in the center portion of the screen, and select a line item with the fallout information you want to view.

- In the selected line item, view the order fallout information associated with the current order line item. Some fields are described in the following table.

Field	Comments
Change Cost	Cost to change this line item. Values include High, Medium, Low, and PONR (signifying Point of No Return, the point at which it is technically unfeasible to make changes to the line item).
Depends On Order Item Id	<p>Defines the dependency of a follow-on sales order line item.</p> <ul style="list-style-type: none"> <li>■ If this is a follow-on order line item, this field displays the original sales order Row ID.</li> <li>■ If this is not a follow-on order line item, displays its own Row ID.</li> </ul>
Depends On Order Id	A joined field from the order using Depends On Order Item Id.
Status	<p>The following pick list values are related to order line item fulfillment:</p> <ul style="list-style-type: none"> <li>■ <b>Suspend.</b> Order line is suspended in the fulfillment system.</li> <li>■ <b>In Progress.</b> Order line is in progress in the fulfillment system.</li> </ul>

You can see fallout order information in the trouble ticket created for a particular failed order.

***To view a fallout order trouble ticket***

- Navigate to the Accounts screen, then the Accounts List view.
- Select the account for which the order has failed and drill down on its Name field.
- In the Account Summary view, scroll down to the Trouble Tickets list and drill down on the Ticket ID # field of the trouble ticket.
- In the Trouble Ticket view, click the Order Failure Information view tab.

The Order Failure Information list displays the failure information related to the order and the order line items.

For more information about order fallout-generated trouble tickets, see the chapter on service requests and trouble tickets in *Siebel Communications Guide*.

# 4

## Workflows for Employee Asset-Based Ordering

This chapter describes the workflows for employee asset-based ordering that are specific to industry applications and supplements the information about workflows for employee asset-based ordering in *Siebel Order Management Guide*.

The workflows are grouped in topics that denote automated business processes. Each topic describes at least one main workflow process and can describe one or more subprocesses that a main process calls. Subprocesses can call additional subprocesses. The workflow listings for each group show how the process and subprocesses are related to each other. In the workflow listings, subprocesses are indented and listed under their corresponding processes.

**NOTE:** If you cannot see all of the detail in some of the larger workflow diagrams in this chapter, you can view these workflows in Siebel Tools to see a clearer image.

Many of the processes and subprocesses use business service methods that are specific to Order Management. The descriptions of workflows include tables listing the names of any methods the workflows call. For information about these methods, see *Siebel Order Management Infrastructure Guide*.

This chapter includes the following topics:

- [“Workflow That Generates Revenue Line Items for an Opportunity” on page 92](#)
- [“Workflows to Edit Quote Line Items” on page 93](#)
- [“Workflows to Edit Order Line Items” on page 97](#)
- [“Workflows to Submit an Order” on page 100](#)
- [“Workflows to Update Order Line Items” on page 105](#)
- [“Workflows to Modify a Service Item” on page 108](#)
- [“Workflows to Disconnect a Service Item” on page 115](#)
- [“Workflows to Suspend or Resume Service Items” on page 118](#)
- [“Workflows to Transfer a Service to Another Location” on page 120](#)
- [“Workflows That Validate a Network” on page 130](#)
- [“Workflows for Price Comparison” on page 132](#)
- [“Workflows for Enrollment” on page 135](#)
- [“Workflows for Bulk Ordering” on page 141](#)
- [“Workflow for Prepaid Services” on page 174](#)
- [“Workflows to Calculate Prices for Orders” on page 175](#)
- [“Workflows to Process an Order” on page 183](#)
- [“Workflows to Cancel an Order” on page 198](#)

■ “Workflows to Process a Quote” on page 202

**NOTE:** Both employee and customer applications use some of these workflows. Only customer applications use workflows with names that begin with CUT eSales. However, these workflows are included in this chapter because workflows for both employee and customer applications call these workflows.

## Workflow That Generates Revenue Line Items for an Opportunity

This workflow generates revenue line items for an opportunity from an associated quote for the opportunity. It consists of one workflow process, “SIS OM Update Revenue Workflow” on page 92.

### SIS OM Update Revenue Workflow

This workflow creates revenue items for all quote line items. For quote line items with recurring charge types, this workflow generates multiple revenue items at intervals equivalent to the unit of measurement. The value in the Number of Occurrences field in the quote line item determines the number of line items the workflow generates. [Figure 1](#) shows this workflow.

A user initiates this workflow by clicking the Update Opportunity button in the Quote Detail view.

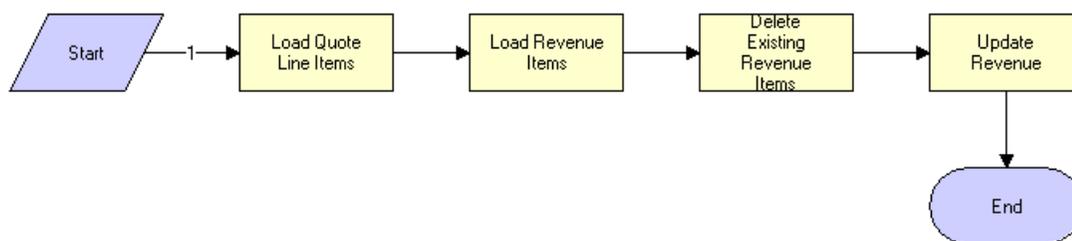


Figure 1. SIS OM Update Revenue Workflow

**Workflow Description.** This workflow:

- 1 Reads the quote line items from the database.
- 2 Reads the revenue items associated with the opportunity for the quote from the database.
- 3 Deletes the existing revenue items.
- 4 Creates revenue items for each quote line item that has the following:
  - An action code of Add or Update.
  - A price type that is not Usage.
  - An extended quantity that is not zero.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
Update Revenue	Quote To Revenue

## Workflows to Edit Quote Line Items

This group of workflows allows a user to edit the line items of quotes that result from creating or modifying service items. It consists of the following workflow process and subprocess:

- [“SIS OM Edit Delta Quote Line Item Workflow” on page 93](#)
  - [“SIS OM Add Service Charge Quote Sub-Process” on page 96](#)

### SIS OM Edit Delta Quote Line Item Workflow

The workflow prevents the new line items that are created for a deleted action code. It is called when the user clicks Customize in the Quote Detail view. This workflow applies active and unprocessed orders to the asset associated with the chosen line item and displays the asset in the Product Configurator view. The user makes changes to define the newly requested state, then clicks Done. The workflow writes the delta of the current and requested states of the asset to the current quote as one or more line items.

Figure 2 illustrates the SIS OM Edit Delta Quote Line Item workflow.

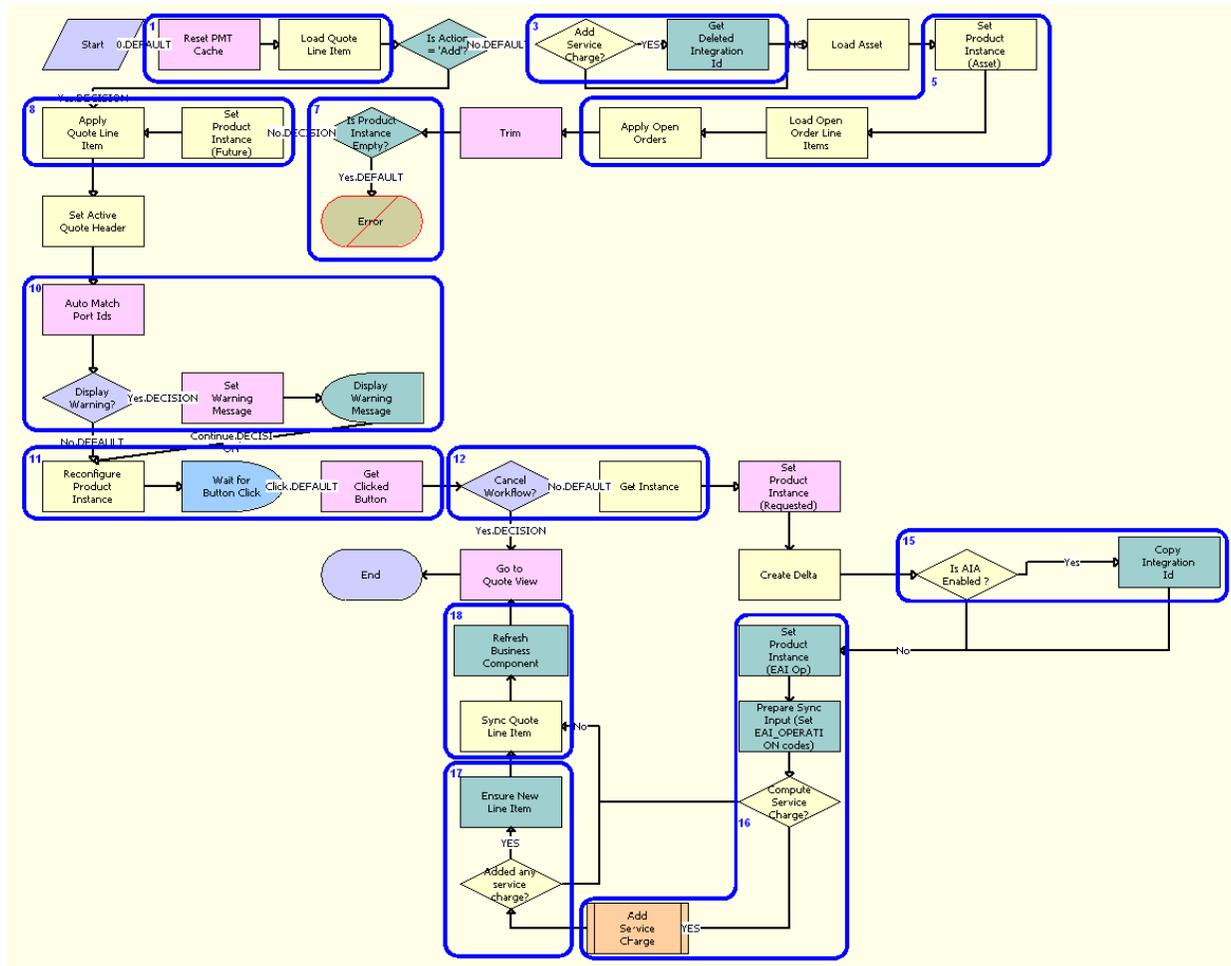


Figure 2. SIS OM Edit Delta Quote Line Item

**Workflow Description.** This workflow performs the following actions:

- 1 **Reset PMT Cache.** Clears the business service cache of existing product instances and loads the quote line item.
- 2 **Is Action = 'Add'?** Checks the action code of the top-level component of the quote line item. If the action code is Add, then the workflow proceeds to [Step 8](#).
- 3 **Add Service Charge?** If the action code is not Add, the workflow recursively loops through the input property set and gets the integration IDs for the line items. The input property set includes the quote line items in the active document.
- 4 **Load Asset.** Reads the asset that is associated with the chosen quote line item from the Siebel database, excluding components that contain an Inactive status.

- 5 **Set Product Instance (Asset).** Retrieves all prior active and unprocessed orders that relate to the asset and applies them to generate the requested future state of the asset.
- 6 **Trim.** Removes the asset components whose Track As Asset flag is not set.
- 7 **Is Product Instance Empty?** If one of the active and unprocessed orders disconnects the top-level component, or if the Track As Asset flag is not set for any asset components, then the resulting asset is empty, and the workflow displays the following error message: A request has already been made to disconnect this service item. The workflow stops.
- 8 **Set Product Instance (Future).** Applies the current quote line item to the asset.
- 9 **Set Active Quote Header.** Stores the quote header so that line items can be added to it.
- 10 **Auto Match Port Ids.** Corrects the asset so that the asset structure matches the product definition. If any changes are made to the asset, then the workflow displays a warning message.
- 11 **Reconfigure Product Instance.** Displays the currently requested state of the asset in the Product Configurator view. The user makes the required changes and clicks Done or Cancel.
- 12 **Cancel Workflow?** If the user clicks Cancel, then the workflow terminates. If the user clicks Done, then the workflow retrieves the newly requested state from the Configurator.
- 13 **Set Product Instance (Requested).** If the action code of the root item is not Add, then the workflow caches the newly requested state of the asset to use as an input to delta.
- 14 **Create Delta.** Generates the delta of the following as one or more quote line items:
  - The requested state of the asset before the current order line item is applied.
  - The state of the asset after the user reconfigures it.
- 15 **Copy Integration Id.** If the system preference Enable AIA Comms is set to True, then the Integration Ids of the deleted line item from 'Quote Line Item' process property are copied, avoiding creating new line items by retaining the existing Integration Ids.
- 16 **Set Product Instance (EAI OP).** Generates a unique asset integration ID for all line items that contain an Add action code.
- 17 **Added any service charge?** Performs one of the following:
  - If the Enable AIA Comms system preference is set to True, then the workflow creates a one-time service charge item for the quote. For more information, see ["SIS OM Add Service Charge Quote Sub-Process" on page 96](#).
  - If the Enable AIA Comms system preference is set to False, then the workflow proceeds to [Step 18](#) without creating a one-time service charge item.
- 18 **Sync Quote Line Item.** Saves the document to the Siebel database.
- 19 **Go to Quote View.** Navigates to the Quote Line Item view.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Get Deleted Integration Id	TraverseHierarchy	SIS OM PMT Service
Refresh Business Component	Refresh Business Component	SIS OM PMT Service
Ensure New Line Item	Set Field Value	SIS OM PMT Service
Set Product Instance (EAI Op)	Set Product Instance	SIS OM PMT Service
Prepare Sync Input (Set EAI_OPERATION codes)	Compute EAI Operation	SIS OM PMT Service
Copy Integration Id	MergeCompPropSets	SIS OM PMT Service

## SIS OM Add Service Charge Quote Sub-Process

This workflow adds a one-time charge to a service instance for a disconnect order type. [Figure 3](#) shows this workflow.

This workflow is called when an end user performs a MACD operation. The SIS OM Edit Delta Quote Line Item workflow calls this workflow as a subprocess.

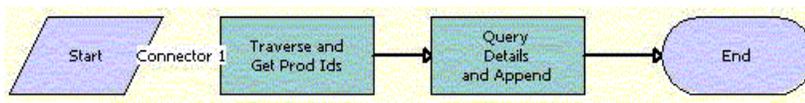


Figure 3. SIS OM Add Service Charge Quote Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Recursively loops through the input property set (the complete hierarchy of service instances for the delete , transfer, suspend, or resume operation) and returns a list of the product IDs and corresponding integration IDs with a Service Bundle billing type, or with a Subscription billing type and Service Instance set to True.
- 2 Queries each of the products and gets the penalty charge details, if any, to append to the input property set.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Traverse and Get Prod Ids	GetProductId	SIS OM PMT Service
Query Details and Append	AppendServiceCharge	SIS OM PMT Service

# Workflows to Edit Order Line Items

This group of workflows allows a user to edit the line items in orders. It consists of the following workflow process and subprocess:

- “SIS OM Edit Service Order Line Item Workflow” on page 97
- “SIS OM Add Service Charge Order Sub-Process” on page 99

## SIS OM Edit Service Order Line Item Workflow

This workflow prevents new line items from being created for a deleted action code. It is called when the user customizes a product. This workflow applies active and unprocessed orders to the asset that is associated with the chosen line item and displays the asset in the Product Configurator view. The user makes changes to define the newly requested state and clicks Done. The workflow then writes the difference between the current and requested states of the asset to the current order as one or more line items.

Figure 4 illustrates the SIS OM Edit Service Order Line Item workflow.

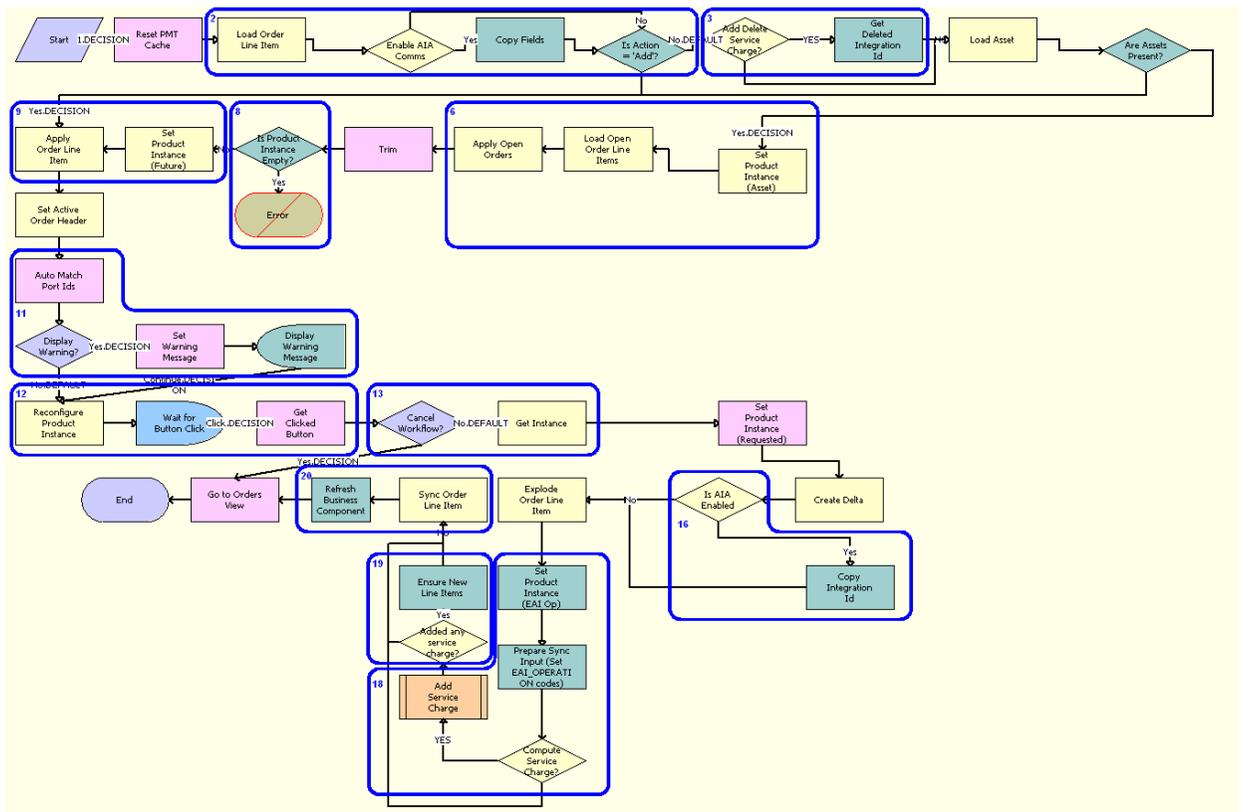


Figure 4. SIS OM Edit Service Order Line Item

**Workflow Description.** This workflow performs the following actions:

- 1 **Reset PMT Cache.** Clears the business service cache of existing product instances.
- 2 **Load Order Line Item.** Checks the action code of the top-level component of the order line item. If the action code is Add, then goes to [Step 9](#).
- 3 **Add Delete Service Charge?** If the action code is not Add, then the workflow recursively loops through the input property set and gets the integration IDs for the line items. The input property set includes the order line items in the active document.
- 4 **Load Asset.** Reads the asset that is associated with the chosen order line item from the Siebel database, excluding components that contain an Inactive status.
- 5 **Are Assets Present?** Checks whether the asset is successfully loaded. If not, then goes to [Step 9](#).
- 6 **Set Product Instance (Asset).** Retrieves all prior active and unprocessed orders that are related to the asset and applies them to generate the requested future state of the asset.
- 7 **Trim.** Removes asset components whose Track As Asset flag is not set.
- 8 **Is Product Instance Empty?** If one of the active and unprocessed orders disconnects the top-level component, or if the Track As Asset flag is not set for any asset components, then the resulting asset is empty, and the workflow displays the following error message: A request has already been made to disconnect this service item. The workflow stops.
- 9 **Set Product Instance (Future).** Applies the current order line item to the asset.
- 10 **Set Active Order Header.** Stores the order header so that line items can be added to it.
- 11 **Auto Match Port Ids.** Corrects the asset so that the asset structure matches the product definition. If any changes are made to the asset, then the workflow displays a warning message.
- 12 **Reconfigure Product Instance.** Displays the currently requested state of the asset in the Product Configurator view. The user makes the required changes, then clicks Done or Cancel.
- 13 **Cancel Workflow?** If the user clicks Cancel, then the workflow terminates. If the user clicks Done, then the workflow retrieves the newly requested state from the Configurator.
- 14 **Set Product Instance (Requested).** Caches the newly requested state of the asset to use as an input in determining the delta.
- 15 **Create Delta.** Generates the delta between the following as one or more order line items:
  - The requested state of the asset before the current order line item is applied.
  - The state of the asset after the user reconfigures it.
- 16 **Copy Integration Id.** If the system preference Enable AIA Comms is set to True, then the Integration Ids of the deleted line item from Order Line Item process property are copied to the delta document, avoiding creation of new line items by retaining the existing Integration Ids.
- 17 **Explode Order Line Item.** Ungroups into multiple line items any order line item that includes a quantity of more than 1, each with a quantity of 1. Writes the order line item to the Siebel database and refreshes the view.

**NOTE:** This step does not control the quantity of the line items. It only works with the quantity it is given. The user specifies order line item quantities in the Configurator.

**18 Set Product Instance (EAI Op).** Performs one of the following:

- If the Enable AIA Comms system preference is set to True, then the workflow creates a one-time service charge item for the order. For more information, see “SIS OM Add Service Charge Order Sub-Process” on page 99.
- If the Enable AIA Comms system preference is set to False, then the workflow proceeds to Step 20 without creating a one-time service charge item.

**19 Added any service charge?** Generates a unique asset integration ID for all line items that contain an action code of Add.

**20 Sync Order Line Item.** Saves the document to the Siebel database.

**21 Go to Orders View.** Navigates to the Order Line Item view.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Copy Fields	CopyFields	SIS OM PMT Service
Get Deleted Integration Id	TraverseHierarchy	SIS OM PMT Service
Copy Integration Id	MergeCompPropSets	SIS OM PMT Service
Set Product Instance (EAI Op)	Set Product Instance	SIS OM PMT Service
Prepare Sync Input (Set EAI_OPERATION codes)	Compute EAI Operation	SIS OM PMT Service
Ensure New Line Items	Set Field Value	SIS OM PMT Service
Refresh Business Component	Refresh Business Component	SIS OM PMT Service

## SIS OM Add Service Charge Order Sub-Process

This workflow adds a one-time charge to a service instance for a disconnect order type. Figure 5 shows this workflow.

This workflow is called when an end user customizes a product. The SIS OM Edit Service Order Line Item workflow calls this workflow as a subprocess.

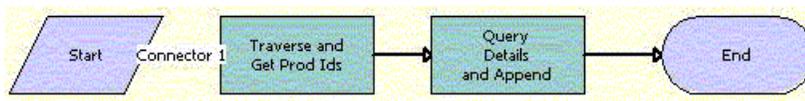


Figure 5. SIS OM Add Service Charge Order Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Recursively loops through the input property set (the complete hierarchy of service instances for the delete operation) and returns a list of the product IDs and corresponding integration IDs with a Service Bundle billing type type, or with a Subscription billing type and Service Instance set to True.
- 2 Queries each of the products and gets the penalty charge details, if any, to append to the input property set.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Traverse and Get Prod Ids	GetProductId	SIS OM PMT Service
Query Details and Append	AppendServiceCharge	SIS OM PMT Service

## Workflows to Submit an Order

This group workflows allows users to submit an order and signal to the provisioning system that the order is ready for provisioning. It consists of the following workflow processes:

- [“Submit Order ASI Workflow” on page 100](#)
- [“SISOMBillingSubmitOrderWebService Workflow” on page 101](#)
- [“SIS OM Submit Order Process” on page 103](#)
- [“Order Process Workflows Retained for Backward Compatibility” on page 104](#)

### Submit Order ASI Workflow

This workflow is used to submit an order. It checks for the value of the system preference Enable AIA OrderToCash. If the value is set to True, it calls the SWISendOrder Workflow. It is called when the user clicks the Submit button in the Sales Order screen.

Figure 6 illustrates this workflow.

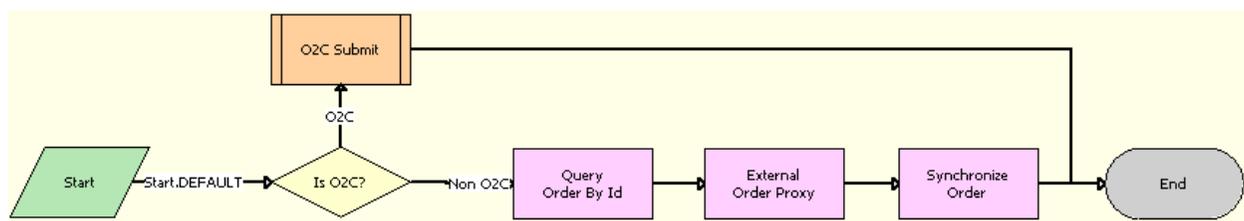


Figure 6. Submit Order ASI

**Workflow Description.** This workflow performs the following actions:

- 1 **Is O2C.** Checks for the value of the Enable AIA OrderToCash system preference.

- 2 **O2C Submit.** Calls the SWISendOrder subprocess.
- 3 **QueryById.** Obtains the details of the order.
- 4 **External Order Proxy.** Calls the External Order business service.
- 5 **Synchronize Order.** Synchronizes the order.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
QueryById	QueryById	Siebel Order
External Order Proxy	Insert	External Order
Synchronize Order	Synchronize	Siebel Order

## SISOMBillingSubmitOrderWebService Workflow

This workflow submits an order from the Siebel CRM application to the billing application and creates a new account, if needed, in the billing application. It is called when a user clicks Submit on the Sales Orders screen.

Figure 7 illustrates the SISOMBillingSubmitOrderWebService workflow.

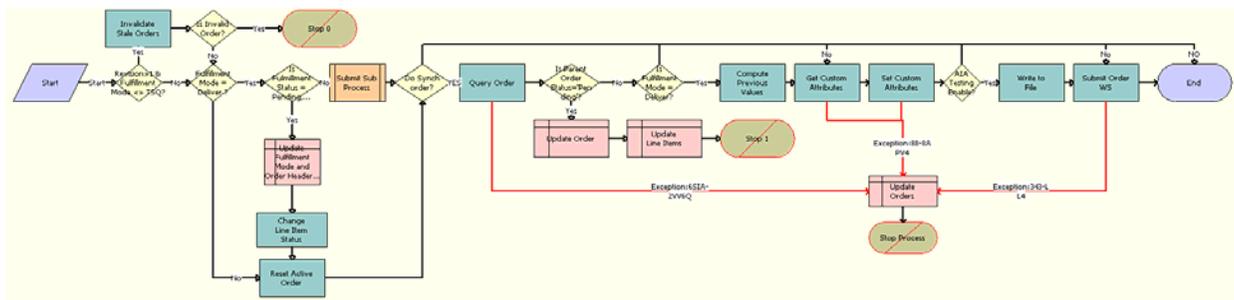


Figure 7. SISOMBillingSubmitOrderWebService

**Workflow Description.** This workflow performs the following actions:

- 1 **Revision > 1 & Fulfillment Mode <> TSQ?** Checks whether the order revision number is greater than 1. If the order revision number is greater than 1, this step checks whether or not this order is valid.
- 2 **Invalidate Stale Orders.** If the Order Revision number is greater than 1, calls the InValidateStaleOrders method. This step checks whether a user is attempting to submit a stale version of an order. If so, this step prevents the user from submitting the current order, to reduce order fallout.
- 3 **Is Invalid Order?** Checks whether the Fulfillment Mode is Cancel:

- If the Fulfillment Mode is Cancel, then this step determines that the order is already submitted for cancellation and resets the active order.
  - If the Fulfillment Mode is not Cancel, then this step submits the order and calls the SIS OM Submit Order Process. For more information, see ["SIS OM Submit Order Process" on page 103](#).
- 4 Stop O.** Displays an error message if the user attempts to submit a sales order before the user submits the parent order.
  - 5 Is Fulfillment Status = Pending, Passed or Failed TSQ?** Checks for the Fulfillment Status Code values Pending TSQ, Passed TSQ, and Failed TSQ, and checks to see whether the Order Status value is not equal to Open. If both the conditions are true, the next step is executed.
  - 6 Update Fulfillment Mode and Order Header Status.** Sets the value of the Fulfillment Status to Deliver and sets the Status of the order to Open.
  - 7 Change Line Item Status.** Sets the Status of each line item to Open.
  - 8 Reset Active Order.** Resets the Active Order so that the current order is no longer the active order.
  - 9 Do Synch order?** Checks whether the System Preference Enable AIA Comms is set to True.
  - 10 Is Fulfillment Mode = Deliver?** Checks if the Fulfillment Mode is Deliver. If the value matches, then only the following step Compute Previous Values is executed
  - 11 Query Order.** Derives the value for the UTCCanonical input parameter of this step from the UTCCanonical process property. The default value for this property is Y.
  - 12 Is Parent Order Status = Pending?** Validates that the status of the parent order is Pending to determine whether the parent order is submitted before the child order (Submitted Order).
  - 13 Update Order.** Updates the Status of the submitted order to Pending if the Is Parent Order Status = Pending step is Yes.
  - 14 Update Line Items.** If the parent order is not submitted, then this step updates the status of the corresponding order line item to Pending.
  - 15 Is Fulfillment Mode = Deliver?** Checks whether the Fulfillment Mode is Deliver. If it is, then only next step, Compute Previous Values, is executed
  - 16 Compute Previous Values.** Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value for this property is Y. The behavior of the workflow depends on the value of the UTCCanonical process property. If it is Y, then the workflow converts the date values of the Sales Order to UTC and Canonical format. To change this behavior, you can change the default value for the UTCCanonical process property in the SISOMBillingSubmitOrderWebService workflow to N. For more information, see ["SISOMBillingSubmitOrderWebService Workflow" on page 101](#).  
**NOTE:** Previous values are computed when an order is modified from an asset, and during the change order process. Previous values are not computed for revision orders.
  - 17 Get Custom Attributes.** Reads the enterprise details, such as the Siebel Enterprise Server name, language, and locale.
  - 18 Set Custom Attributes.** Sets the enterprise details as part of the request message.

- 19 AIA Testing Enable?** Checks whether or not the Enable AIA Testing system preference is set to True.
- 20 Write to File.** Writes the entire order payload as an XML file to the path specified in the AIA Order Backup Path system preference.
- 21 Submit Order WS.** Includes an input argument named siebel\_transport\_param:JMSPriority. This argument maps the Order priority to the JMS priority.
- 22 Update Orders.** If any of the preceding steps include an exception, then this step changes the status of the order from Open to Pending.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

## SIS OM Submit Order Process

Workflow Step	Method Called	In Business Service
Invalidate Stale Orders	InValidateStaleOrders	CMU External Integration Service
Change Line Item Status	SetLIAccounts	CUT eSales Order Entry Toolkit Service
Reset Active Order	Set Profile Attribute	SIS OM PMT Service
Query Order	Query	EAI Siebel Adapter
Compute Previous Step	ComputePreviousValues	CMU External Integration Service
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service
Write to File	WriteEAIMsg	EAI XML Write to File
Submit Order WS	process	SWISubmitOrder

This workflow checks that account information exists and sets the status of the order and the line items to Open. Because only orders that do not have a status of Open are submitted, this workflow cannot submit orders more than once. [Figure 8](#) shows this workflow.

A user initiates this workflow by clicking the Submit button on the order header form in the Order Entry views. The Submit button is hard-coded to call this workflow. Also, the SISOMBillingSubmitOrderWebService workflow calls this workflow as a subprocess.

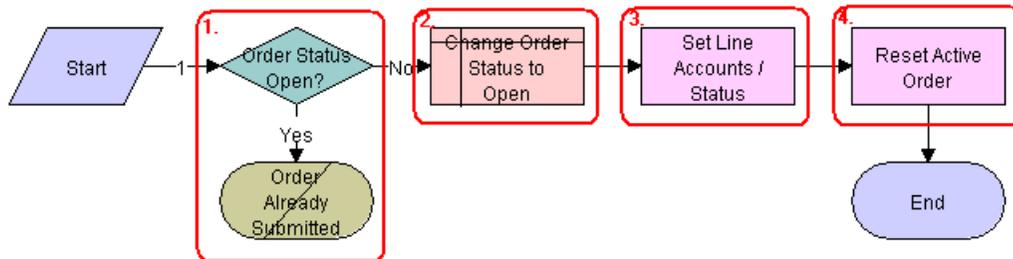


Figure 8. SIS OM Submit Order Process Workflow

**Workflow Description.** This workflow:

- 1 Checks that the order status is not Open.
- 2 If the order has a status of Open, does not submit the order because the order is already submitted.
- 3 Sets the status of the order to Open.
- 4 Sets the status of each Pending line item to Open.
- 5 Resets the Active Order so that the current order is no longer the active order.

## Order Process Workflows Retained for Backward Compatibility

The following workflows were retained for backward compatibility.

### SIS OM Auto Select Order Billing and Service Accounts

This workflow used to be called by an earlier version of “SIS OM Submit Order Process.” It is used by billing and communications functions. It is now obsolete, but it has been retained for backward compatibility.

### SIS OM Auto Select Quote Billing and Service Accounts

This workflow used to be called by an earlier version of “SIS OM Submit Order Process.” It is used by billing and communications functions. It is now obsolete, but it has been retained for backward compatibility.

# Workflows to Update Order Line Items

This group of workflows updates order line items. It consists of the following workflow processes and subprocesses:

- “SIS OM Order Line Item Update Main” on page 105
  - “SIS OM UpdateOrderItem” on page 106
  - “SIS OM NSB Update Order Line” on page 107

## SIS OM Order Line Item Update Main

This workflow updates the status of order line items for simple products, calls a subprocess to update the status of order line items for complex products, and calls a subprocess to update the status of order line items for nested service bundles. [Figure 9](#) shows this workflow.

An inbound Web service call calls this workflow when the status of an order line item changes in the billing application.

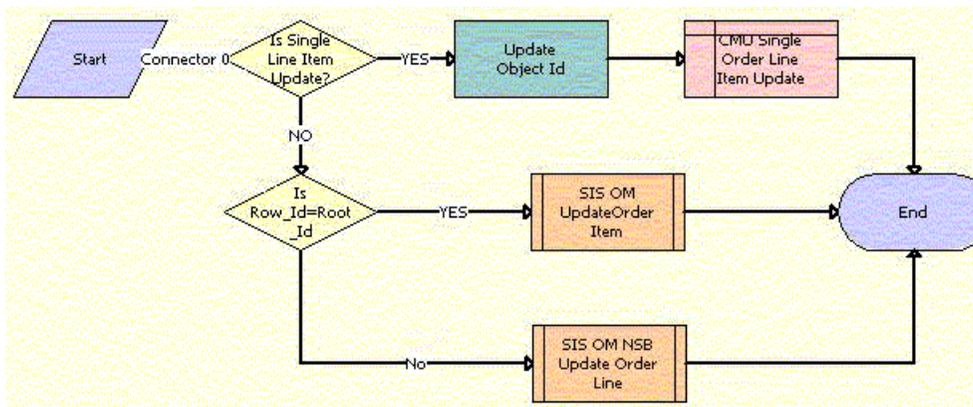


Figure 9. SIS OM Order Line Item Update Workflow

**Workflow Description.** This workflow:

- 1 Updates the status of the order line items for simple products.
- 2 Updates the status of the order line items for complex products. For more information, see “SIS OM UpdateOrderItem” on page 106.
- 3 Updates the status of the order line items for nested service bundles. For more information, see “SIS OM NSB Update Order Line” on page 107

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Update Object Id	Echo	Workflow Utilities

## SIS OM UpdateOrderItem

This workflow updates the status of order line items for complex products. Figure 10 shows this workflow.

The SIS OM Order Line Item Update Main workflow calls this workflow as a subprocess.

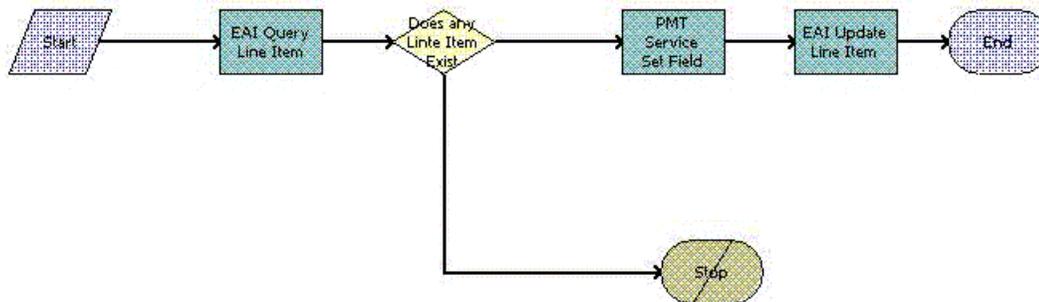


Figure 10. SIS OM UpdateOrderItem Workflow

**Workflow Description.** This workflow:

- 1 Finds the appropriate line item for the order.
- 2 If the line item exists, updates the line item for the order.
- 3 If the line item does not exist, terminates the workflow and returns an error message.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
EAI Query Line Item	Query	EAI Siebel Adapter
PMT Service Set Field	Set Field Value	EAI Siebel Adapter

## SIS OM NSB Update Order Line

This workflow updates the status of order line items for nested service bundles. The field name and value of the line item to update as well as the row ID of the root order and the nested service bundle are passed to this workflow. [Figure 11](#) shows this workflow.

The SIS OM Order Line Item Update Main workflow calls this workflow as a subprocess.

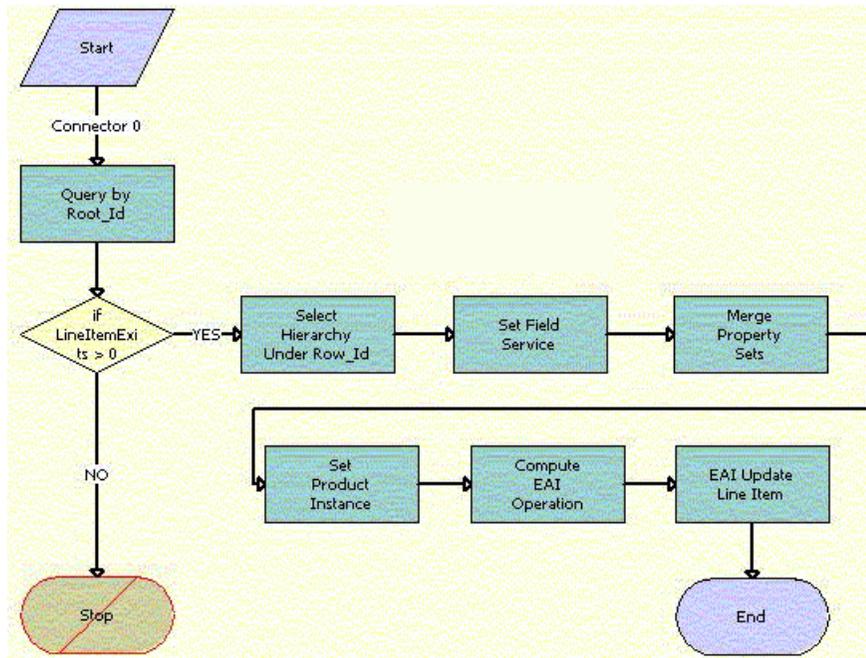


Figure 11. SIS OM NSB Update Order Line Item Workflow

**Workflow Description.** This workflow:

- 1 Gets the order hierarchy of the entire order using the row ID of the root order.
- 2 Gets the order hierarchy of the nested service bundle using the row ID of the nested service bundle.
- 3 Iterates through the order hierarchy of the nested service bundle and updates those fields and values that are passed to the workflow.
- 4 Merges the updated order hierarchy of the nested service bundle with the order hierarchy of the entire order to update the order hierarchy of the entire order.
- 5 Loads the order hierarchy that is not updated into memory.
- 6 Compares the updated order hierarchy with the order hierarchy that is not updated, and sets a flag for the fields with updated values.
- 7 Updates the database with the updated values.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Query by Root_Id	Query	EAI Siebel Adapter
Select Hierarchy Under Row_Id	GetProductHierarchyUnderRow	CMU External Integration Service
Set Field Service	SetFieldValue	CMU External Integration Service
Merge Property Sets	MergePropertySet	CMU External Integration Service
Set Product Instance	Set Product Instance	SIS OM PMT Service
Compute EAI Operation	Compute EAI Operation	SIS OM PMT Service
EAI Update Line Item	Update	EAI Siebel Adapter

## Workflows to Modify a Service Item

This group of workflows allows a user to modify a service item. It consists of the following workflow process and subprocess:

- [“SIS OM Edit Complex Asset Workflow” on page 108](#)
  - [“SIS OM Add Service Charge Sub-Process” on page 112](#)
- [“SIS OM Modify Products & Services Process” on page 113](#)

### SIS OM Edit Complex Asset Workflow

This workflow applies the changes for open and pending orders related to the selected asset and displays the requested state in the Product Configurator view. After the user makes the changes that specify the newly requested state, the workflow writes the delta of the two requested states as quote line items and adds these line items to the active quote. [Figure 12](#) shows this workflow.

The SIS OM Modify Products & Services Process calls this workflow as a subprocess. For information about the SIS OM Modify Products & Services Process workflow, see *Siebel Order Management Guide*.

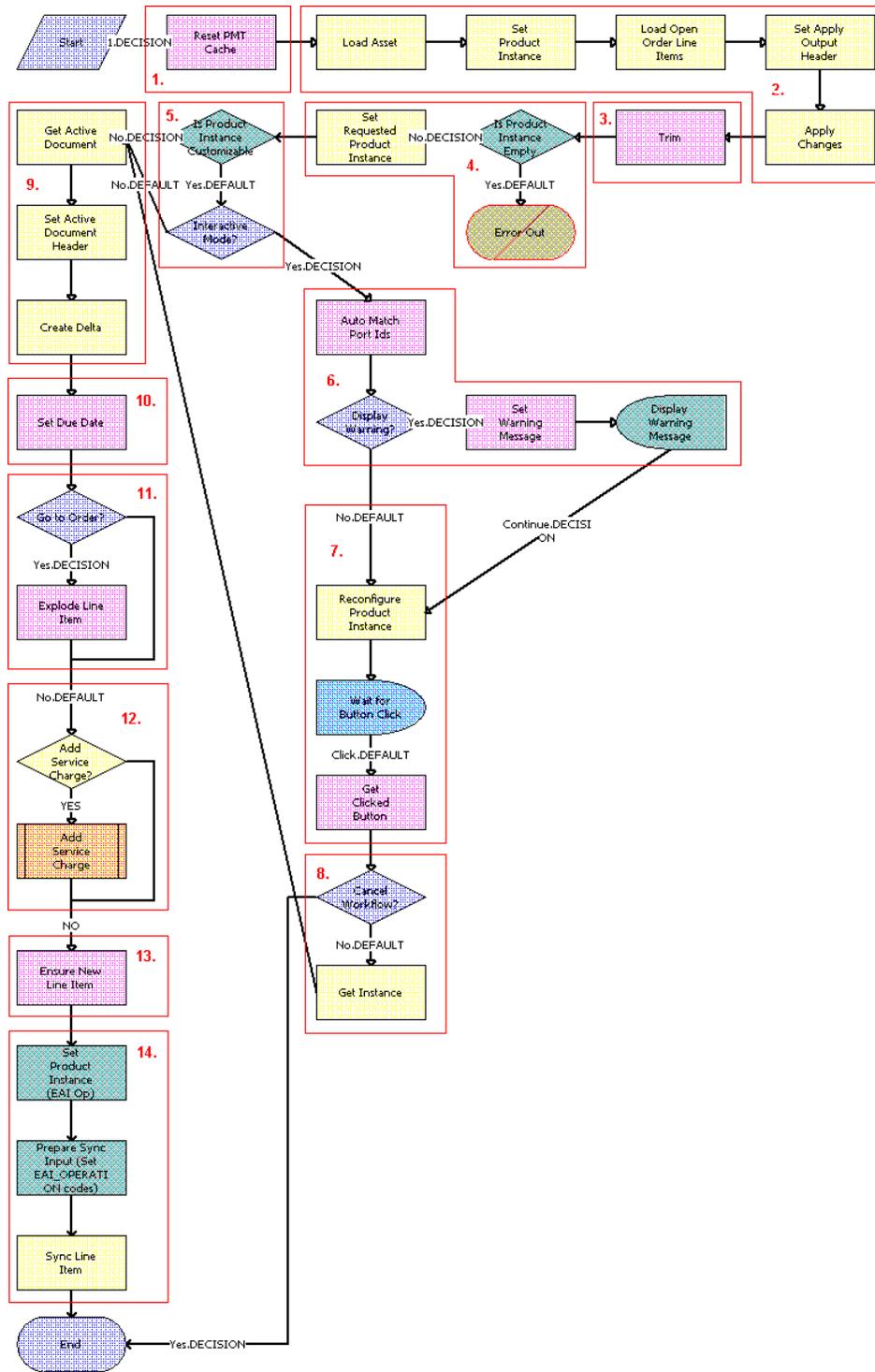


Figure 12. SIS OM Edit Complex Asset Workflow

**Workflow Description.** This workflow:

1 Clears the business service cache of existing product instances.

2 Reads the asset from the database.

The workflow includes only components that do not have a status of Inactive. The workflow looks for all the orders with a status of Open or Pending that are related to the selected asset. The workflow applies the changes that those orders specify to re-create the state of the service product as the user requests it.

3 Removes any components from the asset that do not have the Track As Asset flag set.

4 Displays an error message if the asset is empty.

If an open or pending order disconnects the root component, or if no components have the Track As Asset flag set, the result is an empty asset, and the workflow displays an error message.

5 Tests for a customizable asset and interactive mode.

If the asset is customizable and the workflow is in interactive mode, then displays the asset in the Product Configurator view, where the user can make changes to it. If the asset is not customizable or the workflow is not in interactive mode, then goes directly to [Step 9](#).

6 Self-heals the asset so that the asset structure matches the product definition. If any changes are made to the asset, a warning message appears.

7 Displays the future requested state of the asset in the Configurator view.

8 If the user clicks the Cancel button, the workflow terminates. If the user clicks the Done button, retrieves the newly requested state from the Configurator.

9 Retrieves the active document and adds as line items the delta of the previously requested state of the asset and the newly requested state of the asset.

10 Sets the due date for all the line items.

11 If the active document is an order, explodes (ungroups) the line items with a quantity greater than 1 into multiple copies of the line item, each with quantity 1.

12 A decision point step checks the setting of the Enable AIA Comms system preference, and does one of the following:

- If the system preference is set to TRUE, creates a one-time service charge item for the quote or order based on the type of target document. For more information, see ["SIS OM Add Service Charge Sub-Process"](#) on page 112.

- If the system preference is set to FALSE, goes to [Step 13](#) without creating a one-time service charge item.

13 Generates a unique asset integration ID for all line items with an action code of Add.

14 Saves the document to the database.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Load Open Order Line Items	Find Orders
Set Apply Output Header	Set Output Header
Apply Changes	Apply
Trim	Trim
Set Requested Product Instance	Set Product Instance
Auto Match Port Ids	AutoMatch
Reconfigure Product Instance	Reconfigure Product Instance
Get Clicked Button	Get Cfg Button Click Information
Get Instance	Get Product Instance
Set Active Document Header	Set Output Header
Create Delta	Delta
Set Due Date	Set Field Value
Explode Line Item	Explode
Ensure New Line Item	Set Field Value
Sync Line Item	Synchronize

## SIS OM Add Service Charge Sub-Process

This workflow adds a one-time charge to a service instance for a disconnect, move, suspend, or remove order type. [Figure 13](#) shows this workflow.

This workflow is called when an end user performs a MACD operation. The following workflows call this workflow as a subprocess:

- SIS OM Edit Complex Asset Workflow
- SIS OM Disconnect Asset Sub-Process
- SIS OM Suspend / Resume Sub-Process

■ SIS OM Move Process

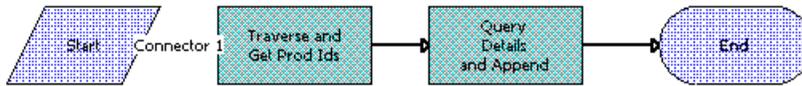


Figure 13. SIS OM Add Service Charge Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Recursively loops through the input property set (the complete hierarchy of service instances for the delete, transfer, suspend, or resume operation) and returns a list of the product IDs and corresponding integration IDs with a Service Bundle billing type or with a Subscription billing type and Service Instance set to True.
- 2 Queries each of the products and gets the penalty charge details, if any, to append to the input property set.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Traverse and Get Prod Ids	GetProductId	SIS OM PMT Service
Query Details and Append	AppendServiceCharge	SIS OM PMT Service

## SIS OM Modify Products & Services Process

This workflow determines whether an active quote exists for the current account. If no active quote exists, this workflow creates a new quote. This workflow generates a quote line item to update the selected asset. If the product has components, the workflow displays the service item in Configurator with all related open orders applied to it. Otherwise, it displays the Quote Detail view. This workflow also validates due date changes. [Figure 14](#) shows this workflow.

A user initiates this workflow by clicking the Modify button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks screen, Nodes view
- Networks screen, Connections view
- Networks screen, All Elements view

■ Orders screen, Order Entry - Line Items view

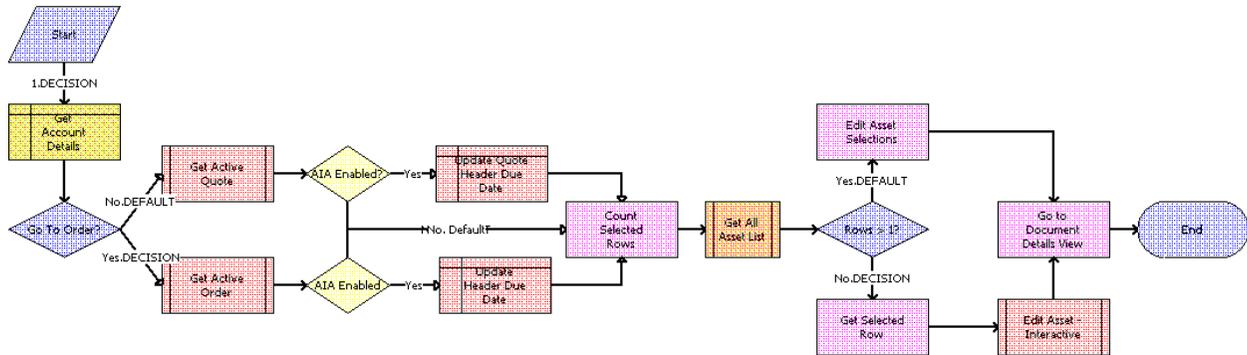


Figure 14. SIS OM Modify Products & Services Process Workflow

**Workflow Description.** This workflow:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.
 

If the Type field of the account is set to Residential, the active order is retrieved. Otherwise, the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Checks whether or not the Enable AIA Comms system preference is set to TRUE.
- 4 If the Enable AIA Comms system preference is set to TRUE, a pop-up window appears in which the user is prompted to select a date. Based on whether the document type is Quote or Order, one of the following actions occurs:
  - If the document type is Quote, the quote header due date is updated with the date selected in the pop-up window.
  - If the document type is Order, the order header due date is updated with the date selected in the pop-up window.
- 5 Gets the number of assets that the user has selected to modify.
- 6 If the user has selected only one asset, the currently requested state of the asset is retrieved and displayed in the Product Configurator view. See SIS OM Edit Complex Asset Workflow.
- 7 If the user has selected more than one asset, the currently requested state of each asset is retrieved and added to the active document. See SIS OM Edit Complex Asset Workflow.
- 8 Displays active document.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Count Selected Rows	Get Selected Row Count
Get Selected Row	Get First Selected Row Value
Edit Asset Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

## Workflows to Disconnect a Service Item

This group of workflows allows a user to disconnect a service. It consists of the following workflow process and subprocess:

- “SIS OM Disconnect Products & Services Process” on page 115
- “SIS OM Disconnect Asset Sub-Process” on page 116
- “SIS OM Add Service Charge Sub-Process” on page 112

### SIS OM Disconnect Products & Services Process

This workflow identifies an active document (quote or order) for the current account. Then it generates a line item to disconnect the selected asset and displays the document detail view. This workflow also validates due date changes. [Figure 15](#) shows this workflow.

A user initiates this workflow by clicking the Disconnect button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks screen, Nodes view
- Networks screen, Connections view
- Networks screen, All Elements view

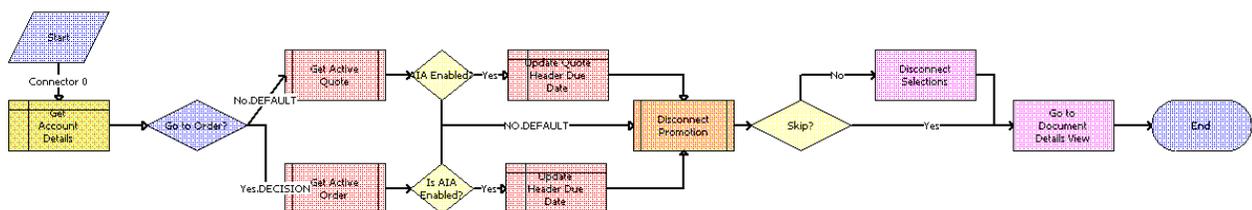


Figure 15. SIS OM Disconnect Products & Services Process Workflow

**Workflow Description.** This workflow:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.  
If the account is of type 'Residential', the active order is retrieved. Otherwise, the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Checks whether or not the Enable AIA Comms system preference is set to TRUE.
- 4 If the Enable AIA Comms system preference is set to TRUE, a pop-up window appears in which the user is prompted to select a date. Based on whether the document type is Quote or Order, one of the following actions occurs:
  - If the document type is Quote, the quote header due date is updated with the date selected in the pop-up window.
  - If the document type is Order, the order header due date is updated with the date selected in the pop-up window.
- 5 Allows the user to disconnect the asset.  
The workflow gets the asset's current state and then creates quote line items to disconnect the asset in that state. See 'SIS OM Disconnect Asset Sub-process'.  
**NOTE:** When deleting a network node, the process will automatically delete all associated network connections. If this is not desirable behavior, change the value of the Delete Connection argument to N.
- 6 Displays the active document.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Disconnect Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

## SIS OM Disconnect Asset Sub-Process

This workflow applies the changes for the open and pending orders related to the selected asset to get requested state of the asset, creates line items to disconnect the selected asset in that state, and adds these line items to the active document. [Figure 16](#) shows this workflow.

The SIS OM Disconnect Products & Services Process calls this workflow as a subprocess. For information about the SIS OM Disconnect Products & Services Process workflow, see *Siebel Order Management Guide*.

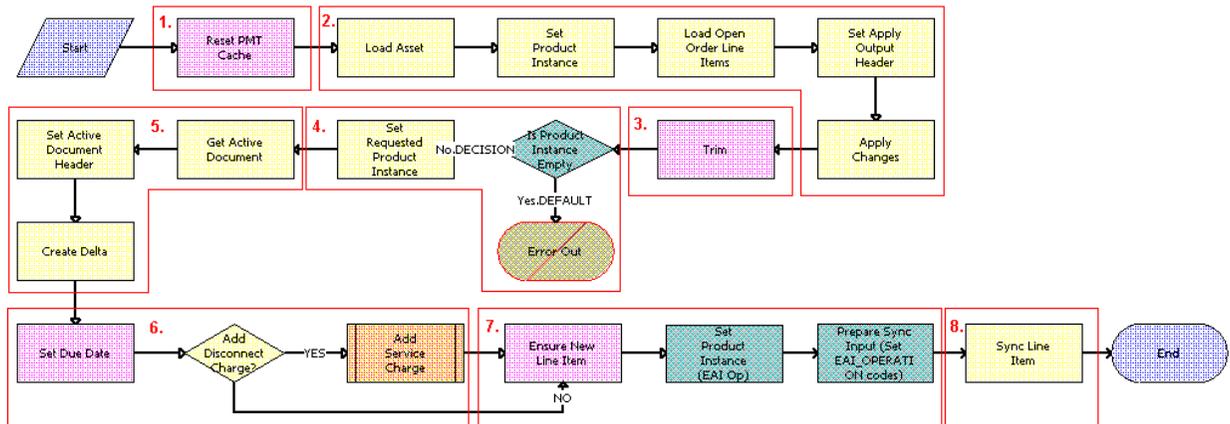


Figure 16. SIS OM Disconnect Asset Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Clears the business service cache of existing product instances.
- 2 Reads the asset from the database.  
The workflow includes only components that do not have a status of Inactive. The workflow looks for all the orders with a status of Open or Pending that are related to the selected asset. The workflow applies the changes that those orders specify to re-create the state of the service product as the user requests it.
- 3 Removes any components from the asset that do not have the Track As Asset flag set.
- 4 Displays an error message if the asset is empty.  
If an open or pending order disconnects the root component, or if no components have the Track As Asset flag set, the result is an empty asset, and the workflow displays an error message.
- 5 Retrieves the active document and generates the delta of the requested state of the asset and the future empty state of the asset to create line items to disconnect the asset in the active document.
- 6 Sets the due date for each line item. A decision point step checks the setting of the Enable AIA Comms system preference, and does one of the following:
  - If the system preference is set to TRUE, creates a one-time service charge item for the quote or order based on the type of target document. For more information, see [“SIS OM Add Service Charge Sub-Process”](#) on page 112.
  - If the system preference is set to FALSE, goes to [Step 7](#) without creating a one-time service charge item.
- 7 Generates a new asset integration ID for any line item with an action code of Add.

8 Saves the document to the database.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Load Open Order Line Items	Find Orders
Set Apply Output Header	Set Output Header
Apply Changes	Apply
Trim	Trim
Set Requested Product Instance	Set Product Instance
Set Active Document Header	Set Output Header
Create Delta	Delta
Set Due Date	Set Field Value
Ensure New Line Item	Set Field Value
Sync Line Item	Synchronize

## Workflows to Suspend or Resume Service Items

This group of workflows allows a user to suspend or resume a service. It consists of the following workflow process and subprocess:

- [“SIS OM Suspend / Resume Products & Services Process” on page 118](#)
- [“SIS OM Add Service Charge Sub-Process” on page 112](#)

### SIS OM Suspend / Resume Products & Services Process

This workflow identifies an active document for the current account. Then it generates a line item to suspend or resume the selected asset and displays the document detail view. This workflow also validates due date changes. [Figure 17](#) shows this workflow.

A user initiates this workflow by clicking the Suspend or Resume button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks, Nodes view

- Networks, Connections view
- Networks, All Elements view

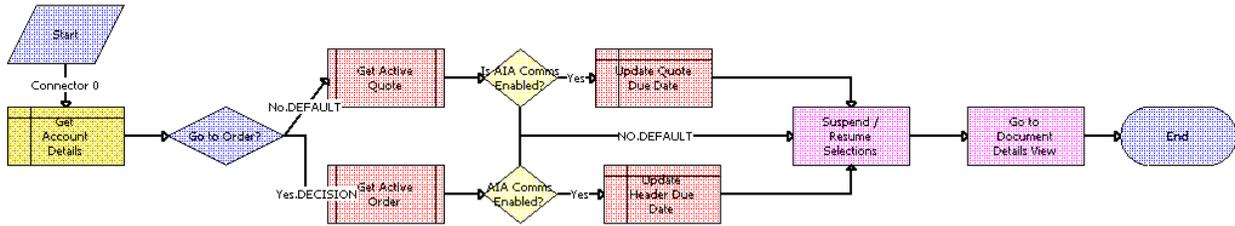


Figure 17. SIS OM Suspend / Resume Products & Services Process Workflow

**Workflow Description.** This workflow:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.  
If the Type field of the account is set to Residential, the active order is retrieved. Otherwise, the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Checks whether or not the Enable AIA Comms system preference is set to TRUE.
- 4 If the Enable AIA Comms system preference is set to TRUE, a pop-up window appears in which the user is prompted to select a date. Based on whether the document type is Quote or Order, one of the following actions occurs:
  - If the document type is Quote, the quote header due date is updated with the date selected in the pop-up window.
  - If the document type is Order, the order header due date is updated with the date selected in the pop-up window.
- 5 Allows the user to suspend or resume the asset.  
The workflow gets the asset's current state and then creates quote line items to suspend or resume the asset in that state. See SIS OM Suspend / Resume Asset Sub-process.
- 6 Displays active document.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Suspend / Resume Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

## Workflows to Transfer a Service to Another Location

This group of workflows facilitates the transfer of service from one location to another location when a customer moves. It consists of the following workflow process and subprocesses:

- [“SIS OM Move Process” on page 120](#)
  - [“SIS OM Move Exception Handling” on page 128](#)
  - [“SIS OM Move Service Point Check” on page 129](#)
  - [“SIS OM Add Service Charge Sub-Process” on page 112](#)
  - [“SIS OM Move Display Quote” on page 130](#)

### SIS OM Move Process

This workflow creates a quote with line items to disconnect all services at the move-out address and to connect those same services at the move-in address. The workflow automatically assigns service points to services at the new address in each case in which a service point of the correct type exists at the new address. [Figure 18](#) shows this workflow.

A user initiates this workflow by clicking the Transfer Service button in the Address MVG of the Accounts view. The user must first specify the end date for services at the move-out address and the start date for services at the move-in address.

**Workflows for Employee Asset-Based Ordering** ■ Workflows to Transfer a Service to Another Location

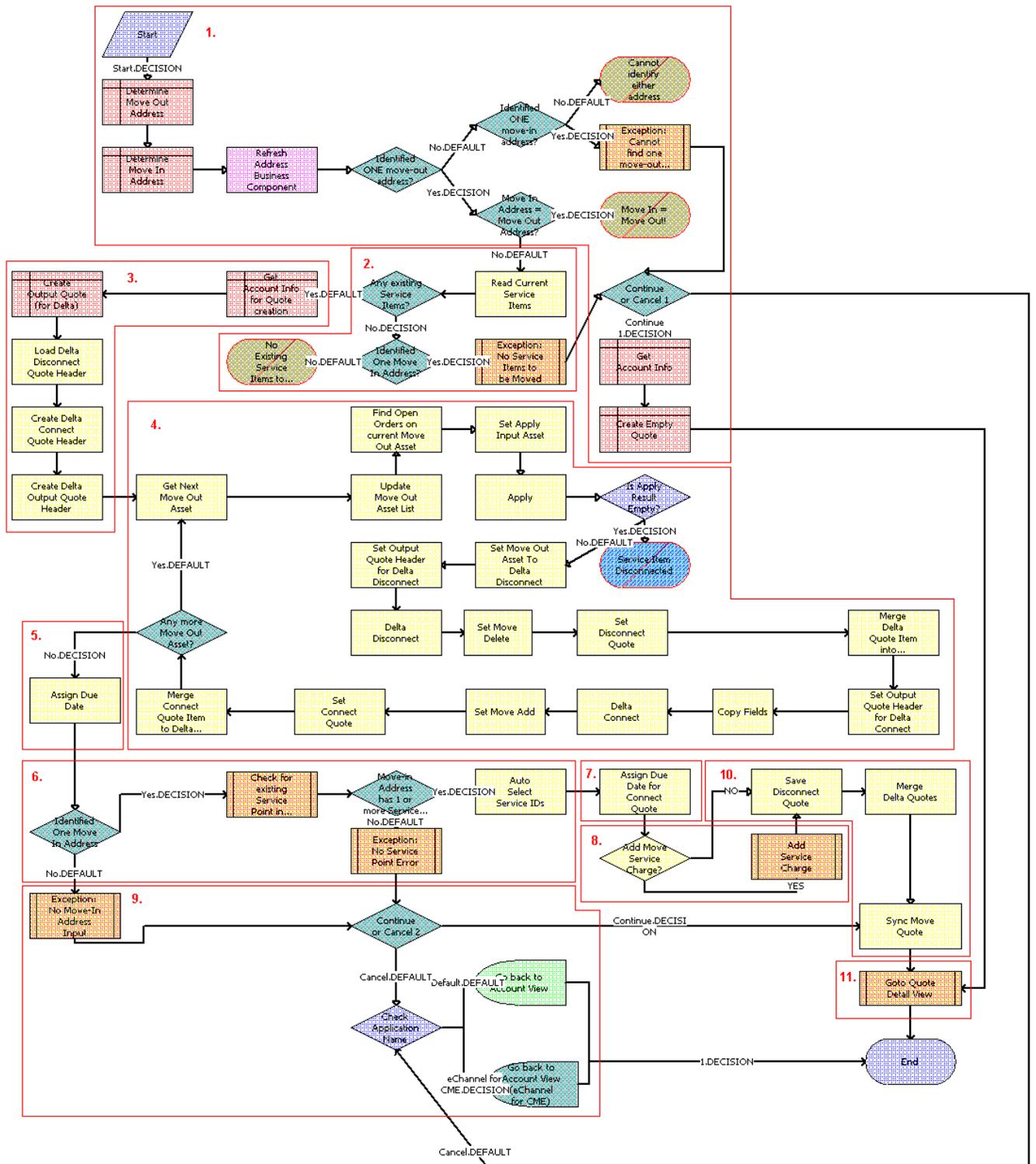
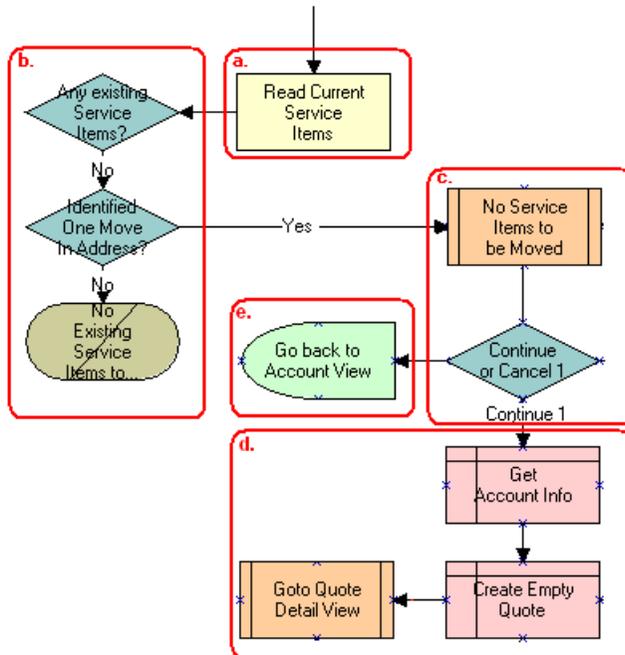


Figure 18. SIS OM Move Process Workflow

**Workflow Description.** This workflow:

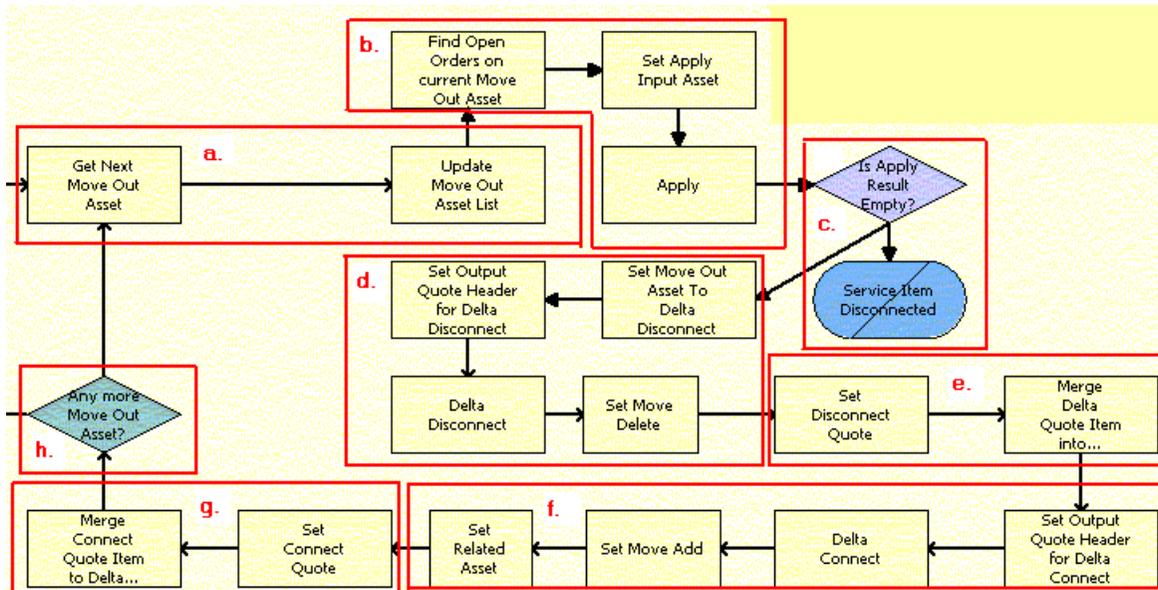
- 1** Identifies and validates the move-out and move-in addresses:
  - a** The workflow identifies the move-out address as the address record for the current account that was updated most recently and that has an end date later than the current date.
  - b** The workflow identifies the move-in address as the address record for the current account that was updated most recently and that has a start date later than the current date.
  - c** If the workflow can identify neither a move-out address nor a move-in address, the workflow displays the following error message: Cannot identify the move-out address and move-in address. Press OK to return to the Account view.  
  
Then the workflow terminates.
  - d** If the workflow identifies a move-out address and a move-in address that are the same, the workflow displays the following error message: The move-in address cannot be the same as the move-out address. Press OK to return to the previous view and try again. Move Out Address = <move-out address> Move Out Date = <move-out date> Move In Address = <move-in address> Move In Date = <move-in date>  
  
Then the workflow terminates.
  - e** If the workflow cannot identify a move-out address but can identify a move-in address, the workflow displays the following error message: Cannot identify the move-out address. Please press Cancel to return to the previous view and provide a valid move-out address, or Continue to manually create a Connect quote for the move-in address.  
  
For more details, see ["SIS OM Move Exception Handling" on page 128](#).
  - f** If the user clicks Continue, the workflow creates and displays an empty quote in the Quote Detail view.  
  
In this view, the user can manually add new items for the move-in address.
  - g** If the user clicks Cancel, the workflow returns the user to the Account view.

- 2 If the move-in address and the move-out address are validated, retrieves the service items for the move-out address.



- a The workflow retrieves the service items.
  - b If the move-out address has no service items and a move-in address is not identified, the workflow displays the following error message: There are no existing service items at the move-out address selected. Press OK to return to the Accounts view.  
Then the workflow terminates.
  - c If the move-out address has no service items and a move-in address is identified, the workflow displays the following error message: There are no existing service items at the move-out address selected. Press Cancel to return to the Accounts view, or Continue to manually create a Connect quote.
  - d If the user clicks Continue, the workflow displays an empty quote in the Quote Detail view.  
In this view, the user can manually add new items for the move-in address.
  - e If the user clicks Cancel, the workflow returns the user to the Account view.
- 3 Creates an output quote and fills in the account information.
  - 4 Generates two quote line items for each service item at the move-out address:
    - A quote line item to disconnect the service item at the move-out address.

- A quote line item to connect the service item at the move-in address.



- a The workflow retrieves in turn each service item at the move-out address.
- b The workflow applies all open and pending orders related to each service item to generate the requested future state of the item.
- c The workflow checks to determine if the asset is disconnected as a result of an open or pending order.  
If the asset is disconnected, an error message displays and the workflow terminates.
- d The workflow generates the delta of the requested state of service item and an empty future state to create the disconnect instructions for the item.
- e The workflow adds the disconnect line items to the disconnect quote.
- f The workflow generates the delta of the requested state of service item and an empty current state to create the connect instructions for the item.
- g The workflow adds the connect line items to the connect quote.
- h If the move-out address has more service items, the workflow continues to the next item.

**Associated Business Service Methods.** The following table shows the steps in this part of the workflow that call business service methods.

Workflow Step	Business Service Method Called
Find Open Orders on current Move Out Asset	Find Orders
Set Apply Input Asset	Set Product Instance
Apply	Apply
Set Move Out Asset To Delta Disconnect	Set Product Instance

Workflow Step	Business Service Method Called
Set Output Quote Header for Delta Disconnect	Set Output Header
Delta Disconnect	Delta
Set Move Delete	Set field Value
Set Disconnect Quote	Set Product Instance
Merge Delta Quote Item into Disconnect Quote	Merge
Set Output Quote Header for Delta Connect	Set Output Header
Delta Connect	Delta
Set Move Add	Set field Value
Set Related Asset	Set field Value
Set Connect Quote	Set Product Instance
Merge Connect Quote Item to Delta Connect Quote	Merge

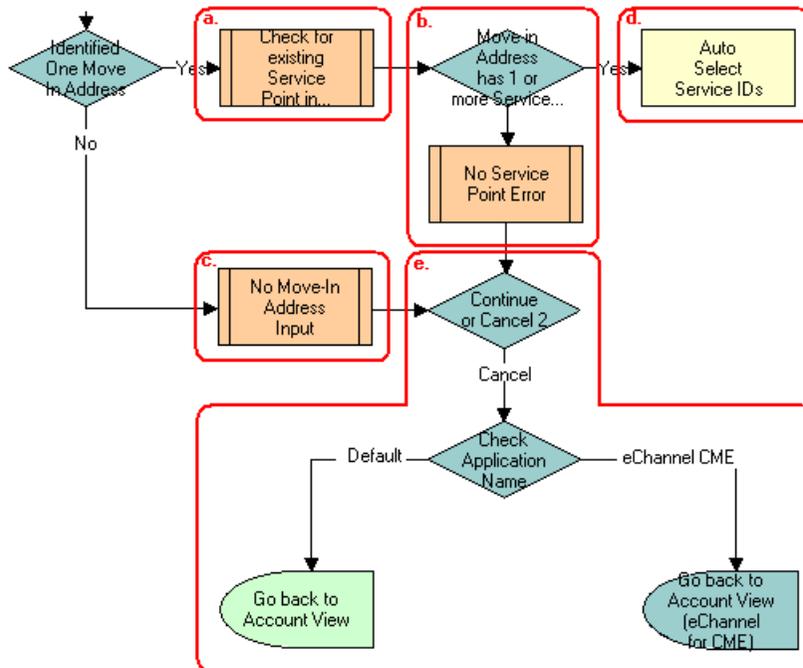
- 5 Specifies the due date for each of the disconnect line items.

The workflow sets the due date to the end date for the move-out address.

**Associated Business Service Methods.** The following table shows the step in this part of the workflow that calls a business service method.

Workflow Step	Business Service Method Called
Assign Due Date	Set Field Value

- 6 If the move-in address is identified, assigns a service point to each service item to connect at that address.



- a The workflow checks to determine if existing service points of any type exist at the move-in address.  
For more details, see [“SIS OM Move Service Point Check” on page 129](#).
- b If no service points exist at the move-in address, the workflow displays the following error message: There are no service points at the move-in address selected. Address may be invalid or outside the service area. Press Continue to proceed with only the Disconnect operation or Cancel to return to the Accounts view.
- c If no available service points of the correct type exist, the Service Point ID for the item is empty.
- d If service points exist at the move-in address, the workflow assigns each service item a service point with the same item type.
- e If the user clicks Continue, the workflow displays the disconnect quote in the Quote Detail view. If the user clicks Cancel, the workflow returns the user to the Account view.

**Associated Business Service Methods.** The following table shows the step in this part of the workflow that calls a business service method.

Workflow Step	Business Service Method Called
Auto Select Service IDs	Assign New Service Ids

- 7 Specifies the due date for each of the connect line items.

The workflow sets the due date to the start date for the move-in address.

**Associated Business Service Methods.** The following table shows the step in this part of the workflow that calls a business service method.

Workflow Step	Business Service Method Called
Assign Due Date for Connect Quote	Set Multiple Field Values

- 8 A decision point step checks the setting of the Enable AIA Comms system preference, and does one of the following:

- If the system preference is set to TRUE, creates a one-time service charge item for the quote. For more information, see [“SIS OM Add Service Charge Sub-Process” on page 112](#).
- If the system preference is set to FALSE, goes to [Step 10](#) without creating a one-time service charge item.

- 9 If the move-in address is not identified, displays the following error message: Cannot identify the move-in address. Please press Cancel to return to the previous view and provide a valid start date or Continue to proceed with only a disconnect at the move-out address. Move In Date Entered = .

The user can cancel the process or proceed with only the disconnect service. If the user clicks the Cancel button, the workflow returns the user to the Accounts view.

- 10 Merges the disconnect line items and the connect line items into one quote and saves that quote to the database.

**Associated Business Service Methods.** The following table shows the steps in this part of the workflow that call business service methods.

Workflow Step	Business Service Method Called
Save Disconnect Quote	Set Product Instance
Merge Delta Quotes	Merge
Sync Move Quote	Synchronize

- 11 Displays the quote in the Quote Detail view.

For more details, see [“SIS OM Move Display Quote” on page 130](#).

## SIS OM Move Exception Handling

This workflow provides exception handling for the SIS OM Move Process. [Figure 19](#) shows this workflow.

The SIS OM Move Process workflow calls this workflow as a subprocess.

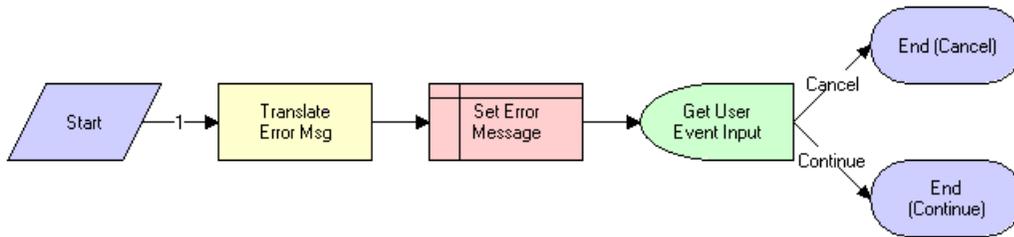


Figure 19. SIS OM Move Exception Handling Workflow

**Workflow Description.** This workflow:

Displays an error message in a view (not in a popup window) and determines if the user clicked the Continue button or the Cancel button.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
Translate Error Msg	Set Exception Error Message

## SIS OM Move Service Point Check

This workflow checks the number of service points at the move-in address. [Figure 20](#) shows this workflow.

The SIS OM Move Process workflow calls this workflow as a subprocess.

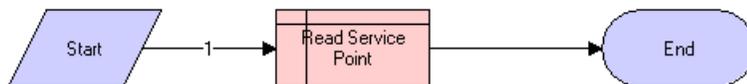


Figure 20. SIS OM Move Service Point Check Workflow

**Workflow Description.** This workflow:

Determines the number of service points for an address.

## SIS OM Move Display Quote

This workflow displays the newly created quote in the Quote Detail view. [Figure 21](#) shows this workflow.

The SIS OM Move Process workflow calls this workflow as a subprocess.



Figure 21. SIS OM Move Display Quote Workflow

**Workflow Description.** This workflow:

Displays the Quote Detail view.

## Workflows That Validate a Network

This group of workflows validates a network. It consists of the following workflow processes:

- “VORD Validate (Quote)” on page 130
- “VORD Validate (Order)” on page 131

### VORD Validate (Quote)

This workflow validates the network (or compound product) for the currently selected quote line item. The workflow executes the rules for the compound product and reports any violations. [Figure 22](#) shows this workflow.

A user initiates this workflow by clicking the Validate button on the Network Line Detail applet in the Quote screen, Line Item, Network Line Detail view.

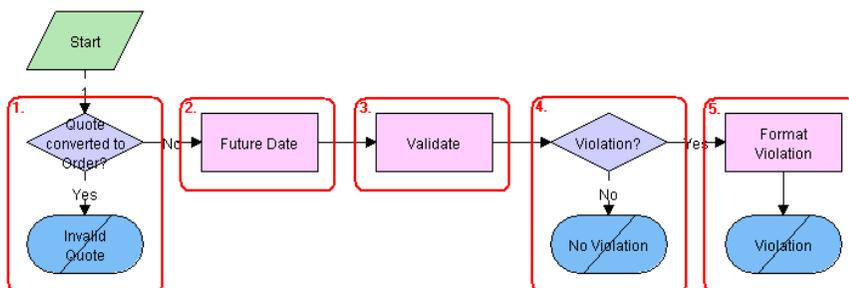


Figure 22. VORD Validate (Quote) Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if the quote is converted to an order. If the quote is converted, displays an error message and terminates the workflow.
- 2 Calculates the future date for which to validate the network.  
The future date is the due date farthest in the future of root line item in the current quote that is part of the same network.
- 3 Calls the Compound Product Validation Engine to validate each of the rules for the compound product.
- 4 If no violations exist, displays the following message: This <compound product> is valid.
- 5 If violations exist, concatenates the error messages into a single string to display to the user.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Future Date	Find Future Date
Validate	Validate
Format Violation	Format Violation

## VORD Validate (Order)

This workflow validates the network (or compound product) for the currently selected order line item. The workflow executes the rules for the compound product and reports any violations. [Figure 23](#) shows this workflow.

A user initiates this workflow by clicking the Validate button on the Network Line Detail applet in the Order screen, Line Item, Network Line Detail view.

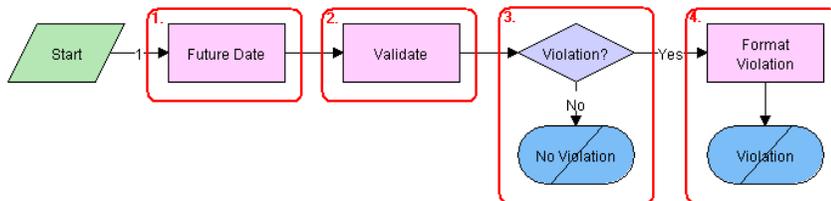


Figure 23. VORD Validate (Order) Workflow

**Workflow Description.** This workflow:

- 1 Calculates the future date for which to validate the network.  
The future date is the due date farthest in the future of root line item in the current order that is part of the same network.

- 2 Calls the Compound Product Validation Engine to validate each of the rules for the compound product.
- 3 If no violations exist, displays the following message: This <compound product> is valid.
- 4 If violations exist, concatenates the error messages into a single string to display to the user.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Future Date	Find Future Date
Validate	Validate
Format Violation	Format Violation

## Workflows for Price Comparison

This group of workflows compares prices. It consists of the following workflow process and subprocess:

- [“SIS OM PC Price Comparison Process” on page 132](#)
  - [“SIS OM Goto Price Comparison View Process” on page 134](#)

### SIS OM PC Price Comparison Process

This workflow generates comparison quotes based on the competitor company service that a customer currently subscribes to. The workflow generates one quote for each product that meets the customer criteria, such as region of service, and provides the total annual charge and savings based on the current usage. [Figure 24](#) shows this workflow.

A SmartScript session calls this workflow. A user initiates the SmartScript session by clicking the New button in the SIS OM PC Opportunity Price Comparison View or by clicking the Compare Prices link on the Home Page.

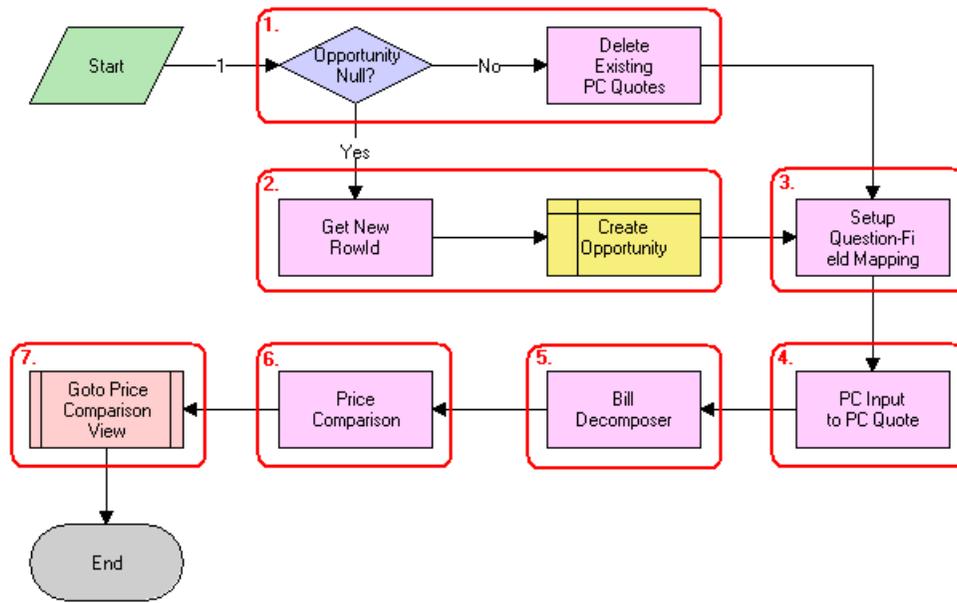


Figure 24. SIS OM PC Price Comparison Process Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if an opportunity exists for the price comparison. If an opportunity exists, deletes all existing price comparison quotes.
- 2 If an opportunity does not exist, creates a new opportunity.
- 3 Maps the SmartScript session questions to the fields of a quote.
- 4 Converts the answers from the SmartScript session to a competitor quote using the mapping created in the previous step.
- 5 Uses the Bill Decomposer method to calculate the user's annual usage.  
This method uses the competitor quote information.
- 6 Uses the Price Comparison method to generate a comparison quote for each product the company offers that meets the user's specified criteria.  
This method uses the usage amounts calculated in the previous step to calculate the projected annual bill for the product pricing.
- 7 Displays the comparison quotes in the Opportunity Price Comparison view. For more details, see ["SIS OM Goto Price Comparison View Process"](#) on page 134.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Delete Existing PC Quotes	Delete Existing PC Quotes	SIS OM Pricing Calculator Service
Get New RowId	Get Next RowId	SIS OM Pricing Calculator Service
Setup Question-Field Mapping	Setup Question Field Map	SIS OM Pricing Calculator Service
PC Input to PC Quote	Convert PC Input to PC Quote	SIS OM Pricing Calculator Service
Bill Decomposer	Bill Decomposer	SIS OM Pricing Calculator Service
Price Comparison	Price Comparison	SIS OM Pricing Calculator Service

## SIS OM Goto Price Comparison View Process

This workflow displays the Opportunity screen, Price Comparison view. [Figure 25](#) shows this workflow.

The SIS OM PC Price Comparison Process workflow calls this workflow as a subprocess.

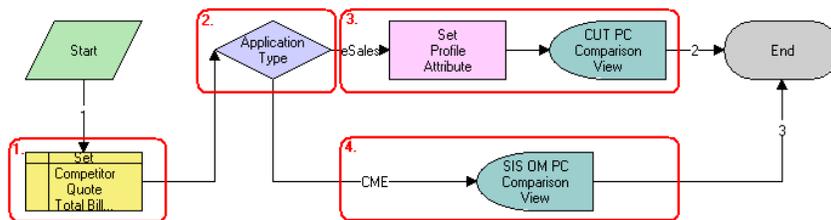


Figure 25. SIS OM Goto Price Comparison View Process Workflow

**Workflow Description.** This workflow:

- 1 Sets the Primary Revenue Amount of the opportunity to the total bill amount passed as an input to the workflow.
- 2 Checks the application that calls the workflow.
- 3 If the application is eSales, stores the Opportunity Id as a profile attribute and displays the CUT Opportunity PC Price Comparison View (eSales).
- 4 If the application is not eSales, displays the SIS OM Opportunity PC Price Comparison View.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Set Profile Attribute	Set Profile Attribute	Product Manipulation Toolkit Service

# Workflows for Enrollment

This group of workflows facilitates user enrollment. It consists of the following workflow process and subprocesses:

- “SIS OM PC Enrollment” on page 135
  - “SIS OM PC Create Account Subprocess” on page 136
  - “SIS OM PC Go To Opportunity View” on page 137
  - “SIS OM PC Set Opportunity Account” on page 138
  - “CUT eSales - PC Enrollment Process” on page 138
    - “CUT eSales - Set Shopping Cart Price List” on page 139
    - “CUT eSales - PC Prepare Cart Process” on page 140
  - “SIS OM PC Go to Order Entry - Line Items View (Sales)” on page 141

## SIS OM PC Enrollment

This workflow generates an order for the product that the user selects from the quotes that the price comparison process generates. [Figure 26](#) shows this workflow.

A user initiates this workflow by clicking the Enroll button in the SIS OM PC Opportunity Price Comparison View or the CUT Opportunity PC Price Comparison View (eSales).

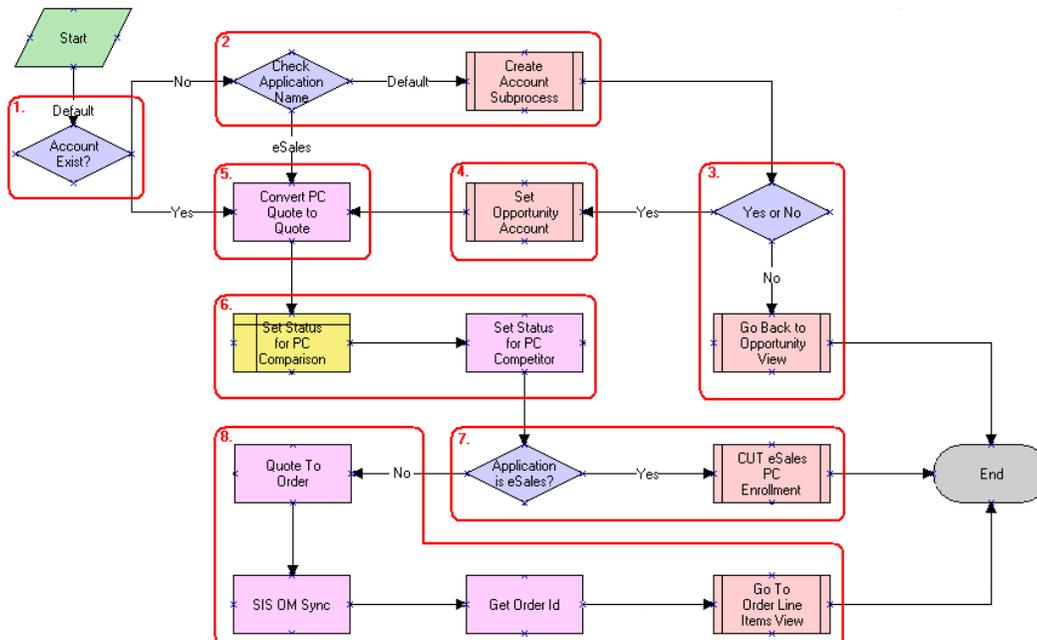


Figure 26. SIS OM PC Enrollment Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if an account is associated with the opportunity.
- 2 If an account does not exist and the application that called the workflow is not eSales, displays the SIS OM PC Account Entry View to allow the user to create a new account. For more details, see [“SIS OM PC Create Account Subprocess” on page 136](#).
- 3 checks to determine if the user created an account. If the user did not create an account, returns the user to the SIS OM PC Opportunity Price Comparison View. For more details, see [“SIS OM PC Go To Opportunity View” on page 137](#).
- 4 If the user created a new account, associates the account with the opportunity. For more details, see [“SIS OM PC Set Opportunity Account” on page 138](#).
- 5 Converts the comparison quote to a regular quote that the order lifecycle can process.
- 6 Sets the status of the comparison and competitor quotes to Order Placed.
- 7 If the application that called the workflow is eSales, merges the comparison quote with the shopping cart. For more details, see [“CUT eSales - PC Enrollment Process” on page 138](#).
- 8 If the application that called the workflow is not eSales, converts the quote to an order and displays the order in the Order Line Item view. For more details, see [“SIS OM PC Go to Order Entry - Line Items View \(Sales\)” on page 141](#).

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Convert PC Quote to Quote	Convert PC Quote to Quote	SIS OM Pricing Calculator Service
Set Status for PC Competitor	Update Status	SIS OM Pricing Calculator Service
Quote to Order	Convert Product Instance	Product Manipulation Toolkit Service
SIS OM Sync	Synchronize	Product Manipulation Toolkit Service
Get Order Id	Return Property Values	Workflow Utilities

## SIS OM PC Create Account Subprocess

This workflow creates a new account for a customer based on the details that the user enters. [Figure 27](#) shows this workflow.

The SIS OM PC Enrollment workflow calls this workflow as a subprocess.

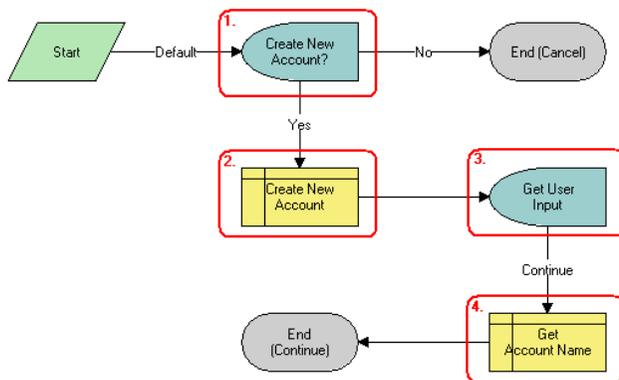


Figure 27. SIS OM PC Create Account Subprocess Workflow

**Workflow Description.** This workflow:

- 1 Displays the SIS OM PC Account Entry Selection View and asks the user if a new account is needed. If the user clicks No, the subprocess does not create an account and terminates.
- 2 If the user clicks Yes, creates a new account.
- 3 Displays the SIS OM PC Account Entry View so the user can enter the details of the account. The user clicks Continue.
- 4 Retrieves the name of the account and returns the name to the calling workflow.

## SIS OM PC Go To Opportunity View

This workflow displays the SIS OM PC Opportunity Price Comparison View. [Figure 28](#) shows this workflow.

The SIS OM PC Enrollment workflow calls this workflow as a subprocess.



Figure 28. SIS OM PC Go To Opportunity View Workflow

**Workflow Description.** This workflow:

Displays the SIS OM PC Opportunity Price Comparison View.

## SIS OM PC Set Opportunity Account

This workflow associates the account ID that the process property specifies with the opportunity. Figure 29 shows this workflow.

The SIS OM PC Enrollment workflow calls this workflow as a subprocess.



Figure 29. SIS OM PC Set Opportunity Account Workflow

**Workflow Description.** This workflow:

Associates the account ID that the process property specifies with the opportunity.

## CUT eSales - PC Enrollment Process

This workflow adds products (to the shopping cart) that the user selects from the quotes that the price comparison process generates. Figure 30 shows this workflow.

**NOTE:** Only customer applications use this workflow. This workflow is included in this chapter because a workflow for both employee and customer applications calls this workflow.

The SIS OM PC Enrollment workflow calls this workflow as a subprocess.

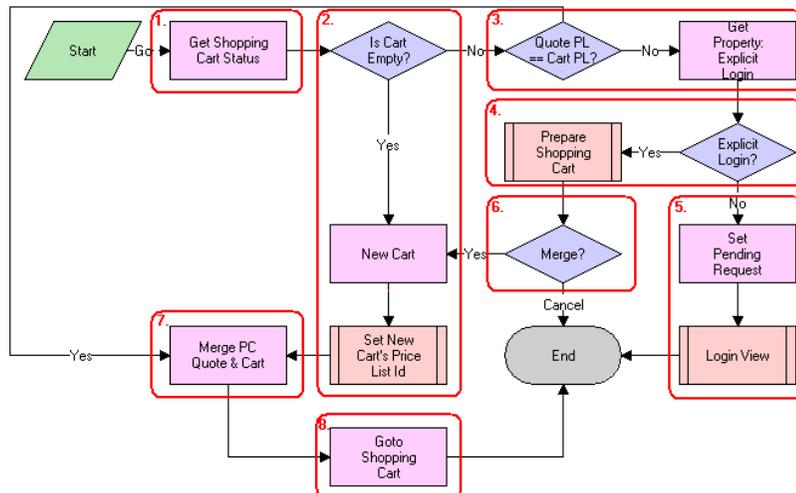


Figure 30. CUT eSales - PC Enrollment Process Workflow

**Workflow Description.** This workflow:

- 1 Checks the status of the shopping cart.
- 2 If the cart is empty, creates a new cart and sets the cart's price list to the internal price list for the price comparison. For more details, see [“CUT eSales - Set Shopping Cart Price List” on page 139](#).
- 3 If the cart is not empty, compares the cart's price list to the price list of the comparison quote the user selects. If the price lists are different, checks to determine if the user explicitly logged in.
- 4 If the user is logged in, displays the Save Cart Confirmation view to allow the user to specify how to handle the existing cart. For more details, see [“CUT eSales - PC Prepare Cart Process” on page 140](#).
- 5 If the user is not logged in, makes a request to display the CUT Opportunity PC Price Comparison View (eSales) on log in, and displays the Login view. The workflow terminates.
- 6 If the user does not save or discards the existing cart, the workflow terminates.
- 7 If the comparison quote's price list and the cart's price list are the same, or new cart is created, adds the comparison quote line items to the cart.
- 8 Displays the Shopping Cart view.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Get Shopping Cart Status	GetShoppingCartStatus	CUT OET Service
Get Property: Explicit Login	GetPropValue	Shopping Service
New Cart	NewCartHeader	CUT OET Service
Set Pending Request	Set Pending Request	Shopping Service
Merge PC Quote & Cart	MergeCxObj	CUT OET Service
Goto Shopping Cart	GotoView	CUT OET Service

## CUT eSales - Set Shopping Cart Price List

This workflow updates the cart's price list to the specified value. [Figure 31](#) shows this workflow.

**NOTE:** Only customer applications use this workflow. This workflow is included in this chapter because a workflow for both employee and customer applications calls this workflow.

The CUT eSales - PC Enrollment Process workflow calls this workflow as a subprocess.



Figure 31. CUT eSales - Set Shopping Cart Price List Workflow

**Workflow Description.** This workflow:

Updates the cart's price list to the specified value.

## CUT eSales - PC Prepare Cart Process

This workflow allows the user to save the current shopping cart or to discard the cart contents before adding the product the user selects from the quotes that the price comparison process generates. Figure 32 shows this workflow.

**NOTE:** Only customer applications use this workflow. This workflow is included in this chapter because a workflow for both employee and customer applications calls this workflow.

The CUT eSales - PC Enrollment Process workflow calls this workflow as a subprocess.

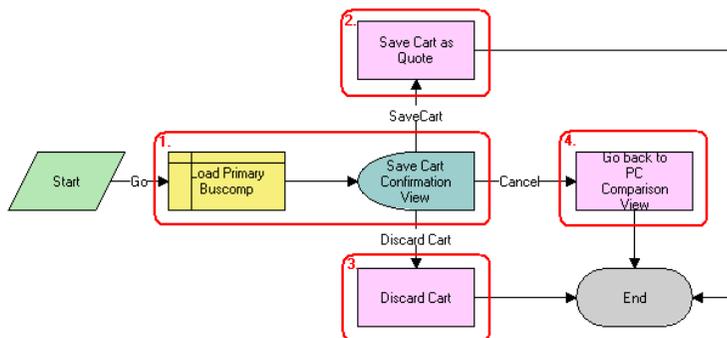


Figure 32. CUT eSales - PC Prepare Cart Process Workflow

**Workflow Description.** This workflow:

- 1 Loads the current shopping cart and displays the Save Cart Confirmation view.
- 2 If the user selects Save, saves the cart.
- 3 If the user selects Discard, discards the cart.
- 4 If the user selects Cancel, displays the CUT Opportunity PC Price Comparison View (eSales) and terminates the calling workflow.

**Associated Business Service Methods.** The following table shows the steps in this workflow that calls business service methods.

Workflow Step	Method Called	In Business Service
Save Cart as Quote	SaveCartAsQuote	Shopping Service
Discard Cart	DiscardCart	Shopping Service
Go Back to PC Comparison View	GotoView	CUT OET Service

## SIS OM PC Go to Order Entry - Line Items View (Sales)

This workflow navigates to the Order Entry - Line Items view (Sales). [Figure 33](#) shows this workflow. The SIS OM PC Enrollment workflow calls this workflow as a subprocess.



Figure 33. SIS OM PC Go to Order Entry - Line Items View (Sales) Workflow

**Workflow Description.** This workflow:

Navigates to the Order Entry - Line Items view (Sales).

## Workflows for Bulk Ordering

This group of workflows facilitates bulk ordering. It consists of the following workflow processes and subprocesses:

- [“ABO Bulk Request Import Workflow” on page 142](#)
- [“ABO Bulk Request - Validate Process” on page 143](#)
- [“ABO Bulk Request - Submit Driver Process Workflow” on page 144](#)
- [“ABO Bulk Request - Submit Process Workflow” on page 145](#)
  - [“ABO Bulk Request - Parallel Sub Process Workflow” on page 147](#)
    - Includes all subprocesses under the next subprocess.
  - [“ABO Bulk Request - Sub Process Workflow” on page 149](#)
    - [“ABO Bulk Request - Prepare Action Set Sub-Process Workflow” on page 151](#)

- “ABO Bulk Request - Inclusive Process Action Sub-Process Workflow” on page 151
  - “ABO Bulk Request - Add Sub-Process Workflow” on page 155
  - Includes all subprocesses under the next subprocess.
- “ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow” on page 154
  - “ABO Bulk Request - Modify Sub-Process Workflow” on page 156
  - “ABO Bulk Request - Delete Sub-Process Workflow” on page 158
  - “ABO Bulk Request - Suspend/Resume Sub-Process Workflow” on page 160
  - “ABO Bulk Request - Upgrade Sub-Process Workflow” on page 163
- “ABO Bulk Request - Notify User Sub-Process Workflow” on page 164
- “ABO Bulk Request Add Item Customize Process” on page 165
  - “ABO Bulk Request Add Item Customize SubProcess” on page 166
- “ABO Bulk Request - Edit Order Line Item” on page 168
- “ABO Bulk Request - Clear Exception Process Workflow” on page 171
  - “ABO Bulk Request - Clear Exception Sub-Process Workflow” on page 171
- “ABO Bulk Request - Reset Process Workflow” on page 172
  - “ABO Bulk Request - Reset Process Sub-Process Workflow” on page 173
- “ABO Bulk Request - Cancel Process Workflow” on page 173

**NOTE:** For some of these bulk ordering workflows, the CallServiceMethod wrapper method calls the method in the workflow. Because these workflows are called asynchronously, some method calls are routed through this wrapper method to capture exceptions.

## ABO Bulk Request Import Workflow

This workflow imports an XML template file for a bulk request. Figure 34 shows this workflow.

A user can initiate this workflow by clicking the Import button on the Bulk Request form or the Bulk Request List view. Also, a runtime event or other engine can call this workflow.

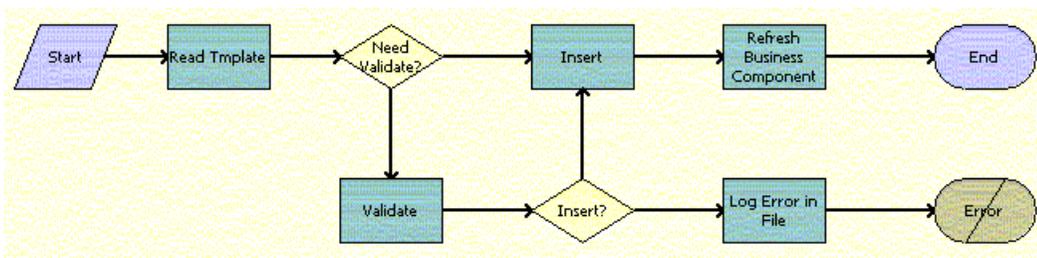


Figure 34. ABO Bulk Request Import Workflow

**Workflow Description.** This workflow:

- 1 Reads the XML template file, extracts the data in the file, and converts the data to a Siebel Message.
- 2 If validation is not configured, writes all of the data (valid and invalid) into the database.
- 3 If validation is configured, validates the data.
- 4 If all the data is valid, writes the data into the database.
- 5 If any of the data is invalid, logs the data into a file.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Read Template	ReadXMLTemplateFile	ABO Bulk Request Import Service
Validate	Validate	ABO Bulk Request Validation Service
Insert	Insert	ABO Bulk Request Import Service
Refresh Business Component	Refresh Business Component	SIS OM PMT Service
Log Error in File	LogExceptionFile	ABO Bulk Request Import Service

## ABO Bulk Request - Validate Process

This workflow validates the data in a bulk request. [Figure 35](#) shows this workflow.

A user can initiate this workflow by clicking the Validate button on the Bulk Request form or the Bulk Request List view.

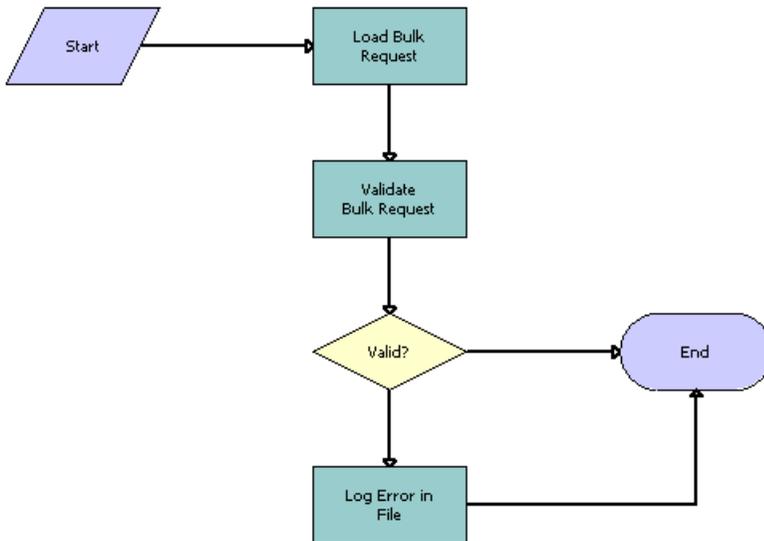


Figure 35. ABO Bulk Request Validate Process workflow

**Workflow Description.** This workflow:

- 1 Loads the data in the bulk request.
- 2 Validates the data in the bulk request against validation rules.
- 3 If any of the data is invalid, logs the data into a file.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Load Bulk Request	Query	EAI Siebel Adapter
Validate Bulk Request	Validate	ABO Bulk Request Validation Service
Log Error in File	LogExceptionFile	ABO Bulk Request Import Service

## ABO Bulk Request - Submit Driver Process Workflow

This workflow submits a bulk request asynchronously. [Figure 36](#) shows this workflow.

A user initiates this workflow by clicking the Submit button on the Bulk Request form or the Bulk Request List view.

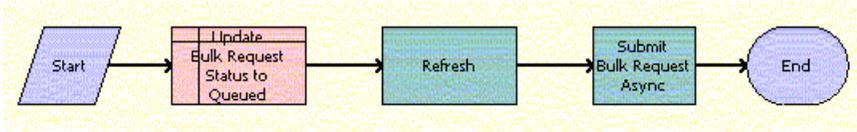


Figure 36. ABO Bulk Request Submit Driver Process Workflow

**Workflow Description.** This workflow:

- 1 Calls Siebel Operation Update to update the status of the bulk request header to Queued.
- 2 Calls the RunProcess business service method for Siebel Server Requests to call the ABO Bulk Request - Submit Process Workflow. For more details, see [“ABO Bulk Request - Submit Process Workflow” on page 145.](#)

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Refresh	Refresh Business Component	SIS OM PMT Service
Submit Bulk Request Async	SubmitRequest	Server Requests

## ABO Bulk Request - Submit Process Workflow

This workflow submits a bulk request for processing. The execution of this workflow can result in one or more exceptions that are logged in the exception table. [Figure 37](#) shows this workflow.

The resubmit process is handled natively in this workflow and is accomplished by loading only those action sets, actions, and users who have the appropriate status.

- Only those action sets with a status of To Process or Partially Processed and no exceptions are loaded. Action sets that are completely processed have a Processed status, and the records are read-only.
- Only those action records with a status of To Process or Partially Processed are loaded. Action records that are completely processed have a Processed status, and action records that have errors have an Error status.
- Only those user records with a status of To Process or Partially Processed are loaded. User records that are completely processed have a Processed status, and user records that have errors have an Error status.

The ABO Bulk Request - Submit Driver Process Workflow calls this workflow as a subprocess.

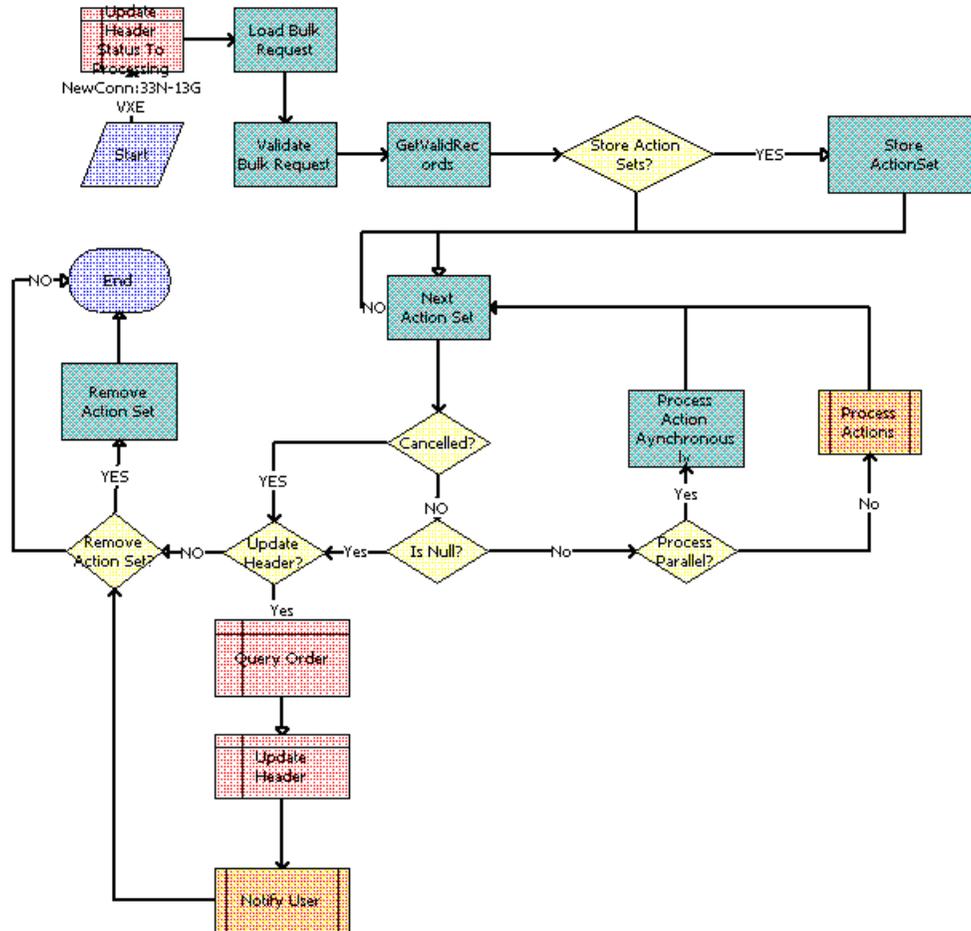


Figure 37. ABO Bulk Request - Submit Process Workflow

**Workflow Description.** This workflow:

- 1 Updates the status of the header for the bulk request to Processing.
- 2 Loads the bulk request record into memory using the EAI Query method that takes as input a search specification that contains the bulk request ID.
- 3 Validates the action sets, actions, and users for the bulk request.
- 4 Gets the valid action sets to process.
- 5 Stores these action sets.
- 6 Calls the Next Action Set business service method to retrieve from memory the next valid action set record to process.
- 7 Checks if the bulk request is cancelled.

- 8 If the bulk request is not cancelled, checks if an action set to process exists for the bulk request.
- 9 If an action set exists, calls the ABO Bulk Request - Parallel Sub Process Workflow for action sets that are processed in parallel or the ABO Bulk Request - Sub Process Workflow for action sets that are not processed in parallel. For more details, see [“ABO Bulk Request - Parallel Sub Process Workflow” on page 147](#) and [“ABO Bulk Request - Sub Process Workflow” on page 149](#).
- 10 Queries the order header to obtain the total number of jobs present for the entered bulk request ID.
- 11 For bulk request headers to update, updates the status of the header to appropriate value and total number of jobs obtained in previous step. The successful or unsuccessful completion of the process to submit the bulk request determines the appropriate value.
- 12 Calls the ABO Bulk Request - Notify User Sub-Process Workflow that notifies the user or creator of the bulk request about the status of the bulk request. For more details, see [“ABO Bulk Request - Notify User Sub-Process Workflow” on page 164](#).
- 13 For bulk request headers to not update, removes the action set for the bulk request, if appropriate.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Load Bulk Request	Query	EAI Siebel Adapter
Validate Bulk Request	Validate	ABO Bulk Request Validation Service
GetValidRecords	Query	EAI Siebel Adapter
Store ActionSet	StoreParentChildInfo	ABO Bulk Request Processing Service
Next Action Set	NextObject	ABO Bulk Request Processing Service
Process Actions Asynchronously	SubmitRequest	Server Requests
Remove Action Set	RemoveParentChildInfo	ABO Bulk Request Processing Service

## ABO Bulk Request - Parallel Sub Process Workflow

This workflow calls the appropriate subprocess to create orders for action sets that are processed in parallel. [Figure 38](#) shows this workflow.

The ABO Bulk Request - Submit Process Workflow calls this workflow as a subprocess.

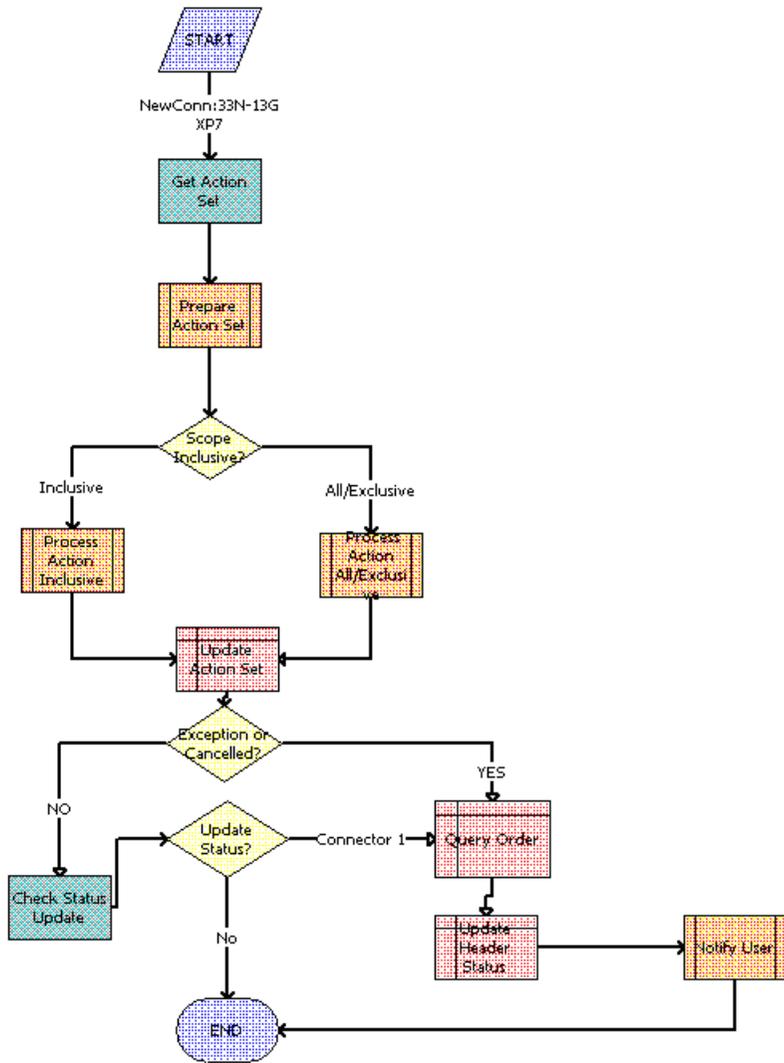


Figure 38. ABO Bulk Request - Parallel Sub Process Workflow

**Workflow Description.** This workflow:

- 1 Calls the ABO Bulk Request - Prepare Action Set Sub-Process Workflow. For more details, see [“ABO Bulk Request - Prepare Action Set Sub-Process Workflow”](#) on page 151.
- 2 If the scope of the action set is Inclusive, calls the ABO Bulk Request - Inclusive Process Action Sub-Process Workflow. For more details, see [“ABO Bulk Request - Inclusive Process Action Sub-Process Workflow”](#) on page 151.
- 3 If the scope of the action set is All or Exclusive, calls the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow. For more details, see [“ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow”](#) on page 154.

- 4 Queries the order header to obtain the total number of jobs present for the entered bulk request ID.
- 5 Updates the status of the action set and the total number of jobs obtained in the previous step.
- 6 Calls the ABO Bulk Request - Notify User Sub-Process Workflow that notifies the user or creator of the bulk request about the status of the bulk request. For more details, see [“ABO Bulk Request - Notify User Sub-Process Workflow” on page 164](#).

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Get Action Set	GetObject	ABO Bulk Request Processing Service
Check Status Update	CheckObject	ABO Bulk Request Processing Service

## ABO Bulk Request - Sub Process Workflow

This workflow calls the appropriate subprocess to create orders for action sets that are not processed in parallel. [Figure 39](#) shows this workflow.

The ABO Bulk Request - Submit Process Workflow calls this workflow as a subprocess.

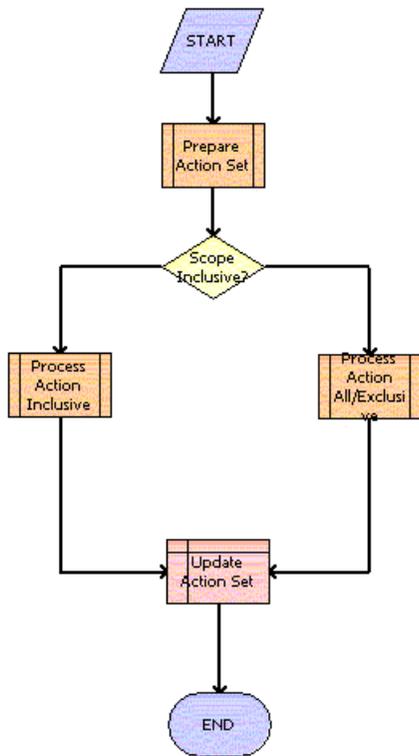


Figure 39. ABO Bulk Request - Sub Process Workflow

**Workflow Description.** This workflow:

- 1 Calls the ABO Bulk Request - Prepare Action Set Sub-Process Workflow. For more details, see [“ABO Bulk Request - Prepare Action Set Sub-Process Workflow” on page 151.](#)
- 2 If the scope of the action set is Inclusive, calls the ABO Bulk Request - Inclusive Process Action Sub-Process Workflow. For more details, see [“ABO Bulk Request - Inclusive Process Action Sub-Process Workflow” on page 151.](#)
- 3 If the scope of the action set is All or Exclusive, calls the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow. For more details, see [“ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow” on page 154.](#)
- 4 Updates the status of the action set.

## ABO Bulk Request - Prepare Action Set Sub-Process Workflow

This workflow creates a new or follow-on order for each action set in a submitted bulk request. This workflow passes out the new order ID, the order number, and the follow-on flag. [Figure 40](#) shows this workflow.

The ABO Bulk Request - Parallel Sub Process Workflow and the ABO Bulk Request - Sub Process Workflow call this workflow as a subprocess.

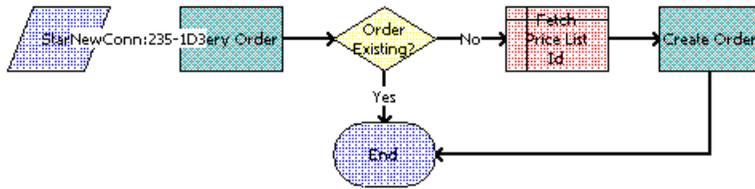


Figure 40. ABO Bulk Request - Prepare Action Set Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Queries the Order table for orders for the action set. If an unprocessed (not submitted) order exists, takes no action. If processed (submitted) order exists, returns a flag indicating that the action set is a candidate for follow-on order creation.
- 2 Checks the output of the order query and indicates if a new or follow-on order is needed.
- 3 Gets the price list for the order.
- 4 Creates the order along with the Job Id and the Job Type for this action set using EAI Insert.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Query Order	QueryOrder	ABO Bulk Request Processing Service
Create Order	CreateOrder	ABO Bulk Request Processing Service

## ABO Bulk Request - Inclusive Process Action Sub-Process Workflow

When the scope of the action set is Inclusive, this workflow cycles through the consolidated actions in the action set of a submitted bulk order to call the appropriate subprocess to create order line items for the users in the bulk order. [Figure 41](#) shows this workflow.

The ABO Bulk Request - Parallel Sub Process Workflow or the ABO Bulk Request - Sub Process Workflow calls this workflow as a subprocess.

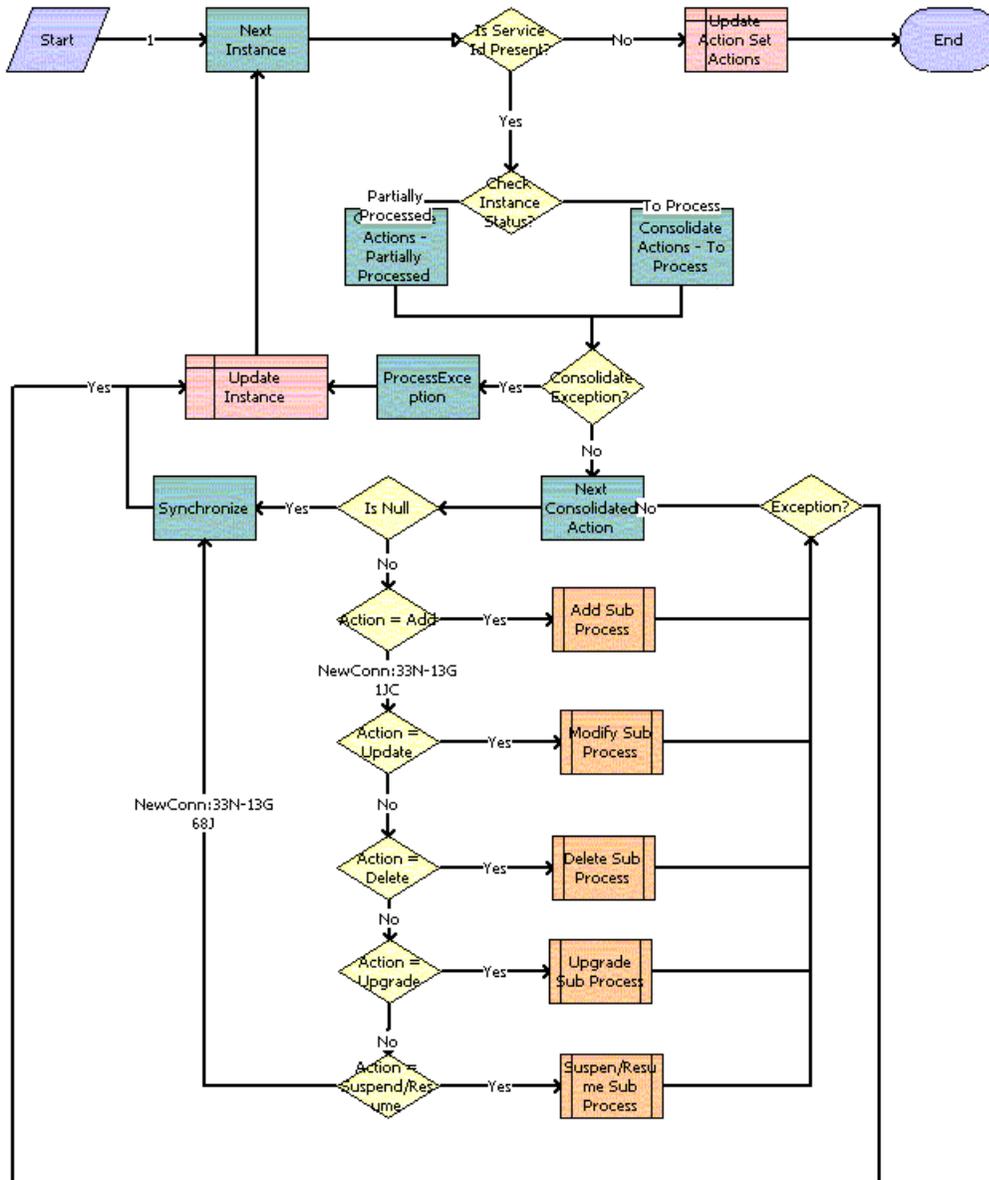


Figure 41. ABO Bulk Request - Inclusive Process Action Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Calls the Next Instance business service method to retrieve from memory the next valid instance record to process.
- 2 Checks if a service ID exists.
- 3 If a service ID exists, checks if status for the instance is To Process or Partially Processed.
- 4 Consolidates the To Process and Partially Processed actions for the instance.
- 5 Checks for exceptions from the consolidation step.
- 6 Processes any found exceptions.
- 7 Gets the next valid consolidated action record to process.
- 8 Based on the action code, calls the appropriate subprocess to create order line items. The subprocess uses the consolidated action and the list of action set users as input. For more details, see:
  - ["ABO Bulk Request - Add Sub-Process Workflow" on page 155](#)
  - ["ABO Bulk Request - Modify Sub-Process Workflow" on page 156](#)
  - ["ABO Bulk Request - Delete Sub-Process Workflow" on page 158](#)
  - ["ABO Bulk Request - Suspend/Resume Sub-Process Workflow" on page 160](#)
  - ["ABO Bulk Request - Upgrade Sub-Process Workflow" on page 163](#)
- 9 Synchronizes the order line items for the instance with the price calculation, if specified.
- 10 Updates the status of the instance to Processed, Partially Processed or Error (for found exceptions).
- 11 When no service ID exists, updates the status of the actions for the action set to Processed, Partially Processed, or Error (for found exceptions).

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Next Instance	NextObject	ABO Bulk Request Processing Service
Consolidate Actions - Partially Processed	ConsolidateAllActions	ABO Bulk Request Processing Service
Consolidate Actions - To Process	ConsolidateAllActions	ABO Bulk Request Processing Service
ProcessException	WriteException	ABO Bulk Request Processing Service
Next Consolidated Action	NextObject	ABO Bulk Request Processing Service
Synchronize	Synchronize	ABO Bulk Request Processing Service

## ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow

When the scope of the action set is All or Exclusive, this workflow cycles through the consolidated actions in the action set of a submitted bulk order to call the appropriate subprocess to create order line items for the users in the bulk order. Figure 42 shows this workflow.

The ABO Bulk Request - Parallel Sub Process Workflow or the ABO Bulk Request - Sub Process Workflow calls this workflow as a subprocess.

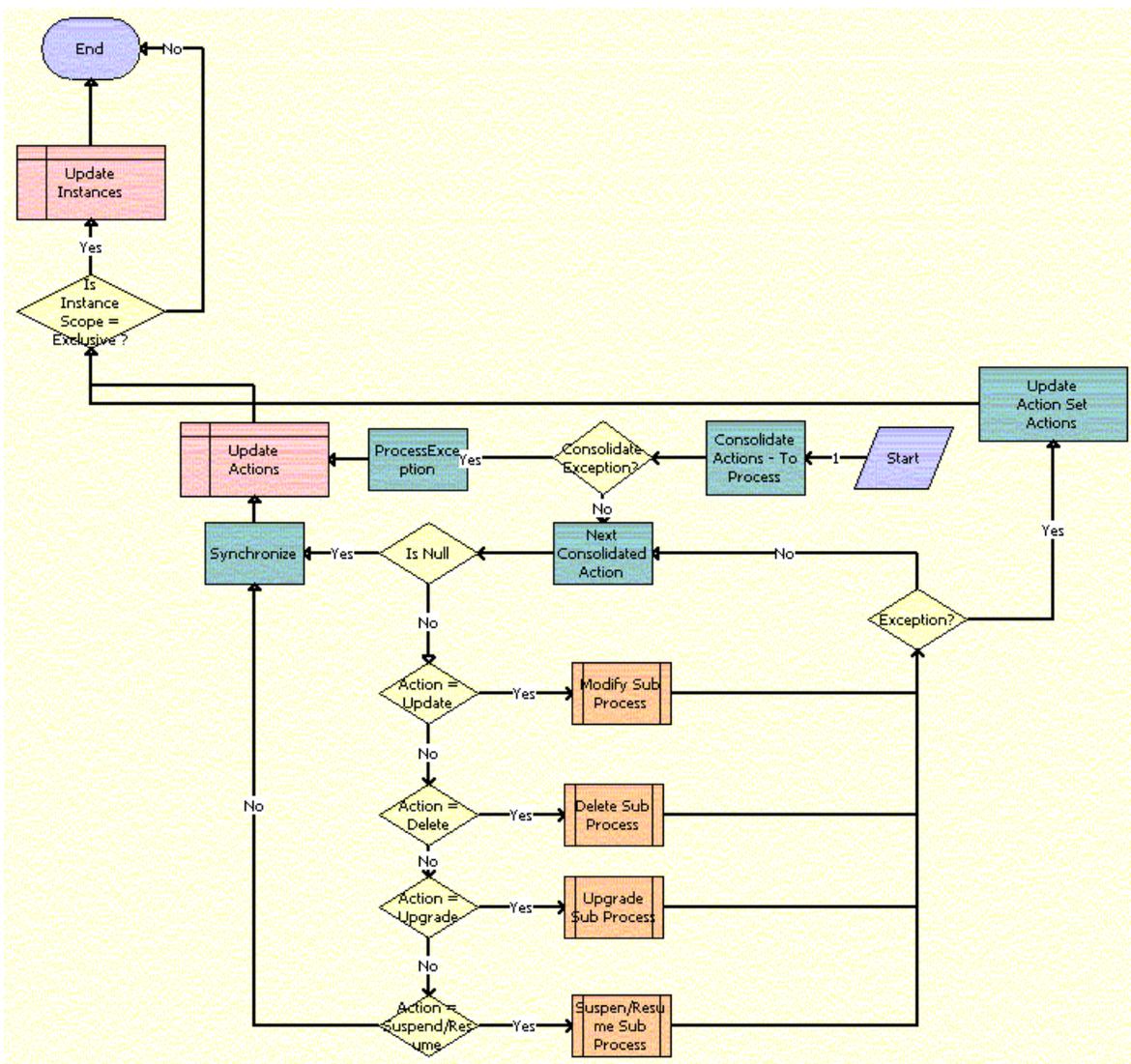


Figure 42. ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Consolidates the To Process actions for the instance.
- 2 Checks for exceptions from the consolidation step.
- 3 Processes any found exceptions.
- 4 Gets the next valid consolidated action record to process.
- 5 Based on the action code, calls the appropriate subprocess to create order line items. The subprocess uses the consolidated action and the list of action set users as input. For more details, see:
  - [“ABO Bulk Request - Modify Sub-Process Workflow” on page 156](#)
  - [“ABO Bulk Request - Delete Sub-Process Workflow” on page 158](#)
  - [“ABO Bulk Request - Suspend/Resume Sub-Process Workflow” on page 160](#)
  - [“ABO Bulk Request - Upgrade Sub-Process Workflow” on page 163](#)
- 6 Synchronizes the order line items for the instance with the price calculation, if specified.
- 7 Updates the status of the actions for the action set to Processed or Error (for found exceptions).
- 8 If the scope of the action is Exclusive, updates the status of the instance.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Consolidate Actions - To Process	ConsolidateAllActions	ABO Bulk Request Processing Service
Next Consolidated Action	NextObject	ABO Bulk Request Processing Service
Synchronize	Synchronize	ABO Bulk Request Processing Service
ProcessException	UpdateActionSetAction	ABO Bulk Request Processing Service
Update Action Set Actions	UpdateActionSetAction	ABO Bulk Request Processing Service

## ABO Bulk Request - Add Sub-Process Workflow

This workflow creates an order line item when the consolidated action is Add. [Figure 43](#) shows this workflow.

The ABO Bulk Request - Inclusive Process Action Sub-Process Workflow calls this workflow as a subprocess when the consolidated action is Add.

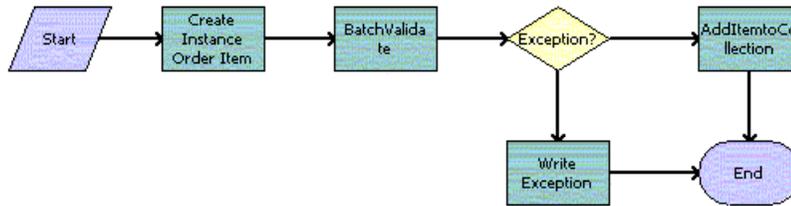


Figure 43. ABO Bulk Request - Add Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Creates an order line item for the product instance associated with the bulk request instance (user).
- 2 Checks the order line items against Configurator rules to validate the order line items.
- 3 If exceptions exist, creates the exception records.
- 4 If exceptions do not exist, adds the order line items to a collection in memory for synchronization.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Create Instance Order Item	SetInstanceData	ABO Bulk Request Processing Service
BatchValidate	BatchValidate	ABO Bulk Request Processing Service
AddItemtoCollection	AddItemtoCollection	ABO Bulk Request Processing Service
Write Exception	WriteException	ABO Bulk Request Processing Service

## ABO Bulk Request - Modify Sub-Process Workflow

This workflow creates an order line item when the consolidated action is Update. [Figure 44](#) shows this workflow.

The ABO Bulk Request - Inclusive Process Action Sub-Process Workflow and the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow call this workflow as a subprocess when the consolidated action is Update.

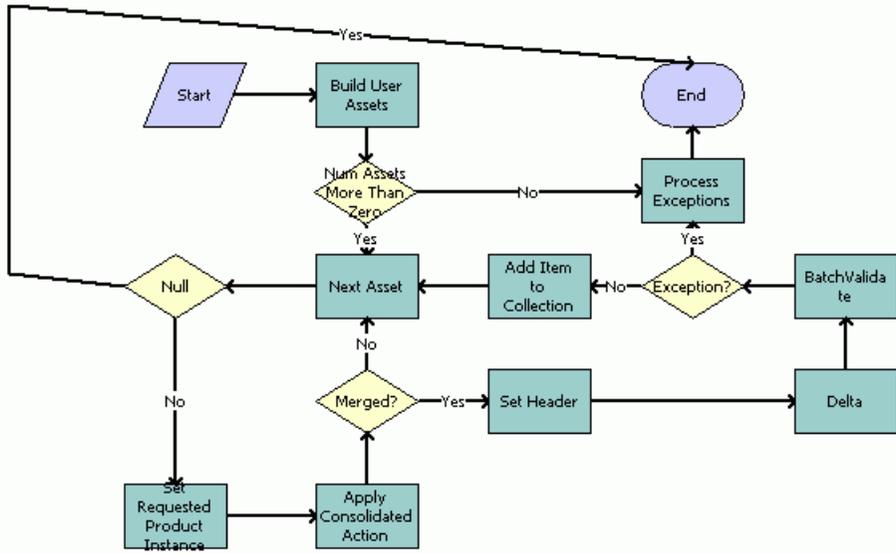


Figure 44. ABO Bulk Request - Modify Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Uses the contact ID and account ID for the user and the product ID to load the asset records for the user. If no asset records exist, an exception occurs, and the workflow terminates.
- 2 From the instance asset records created in the previous step, loads into memory the next asset for the user.
- 3 Uses the asset for the user and the consolidated action (converted into asset hierarchy) to build the future state of the asset.
- 4 Compares the future state of the asset to the initial state of the asset to create the order line item records with appropriate action codes.
- 5 Checks the order line items against Configurator rules to validate order line items.
- 6 If exceptions exist, creates the exception records.
- 7 If exceptions do not exist, adds the order line items to a collection in memory for synchronization.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Build User Assets	BuildInstanceAsset	ABO Bulk Request Processing Service
Process Exceptions	WriteException	ABO Bulk Request Processing Service
Next Asset	NextObject	ABO Bulk Request Processing Service
Set Requested Product Instance	Set Product Instance	SIS OM PMT Service
Apply Consolidated Action	MergeConsolidateAction	ABO Bulk Request Processing Service
Set Header	Set Output Header	SIS OM PMT Service
Delta	Delta	SIS OM PMT Service
BatchValidate	BatchValidate	ABO Bulk Request Processing Service
Add Item to Collection	AddItemtoCollection	ABO Bulk Request Processing Service

## ABO Bulk Request - Delete Sub-Process Workflow

This workflow creates an order line item when the consolidated action is Delete. [Figure 45](#) shows this workflow.

The ABO Bulk Request - Inclusive Process Action Sub-Process Workflow and the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow call this workflow as a subprocess when the consolidated action is Delete.

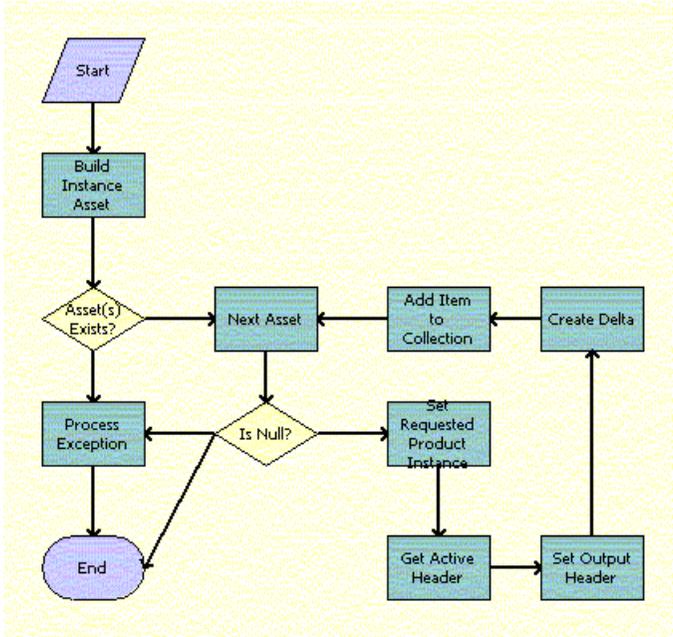


Figure 45. ABO Bulk Request - Delete Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Loads the instance asset records to delete. If no asset records exist, an exception occurs, and the workflow terminates.
- 2 From the instance asset records created in the previous step, loads into memory the next asset to delete.
- 3 Sets the current asset as the instance from which to create order line records.
- 4 Creates the order line item records with Delete action codes.
- 5 Adds the order line items to a collection in memory for synchronization.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Build Instance Asset	BuildInstanceAsset	ABO Bulk Request Processing Service
Next Asset	NextObject	ABO Bulk Request Processing Service
Process Exception	WriteException	ABO Bulk Request Processing Service
Set Requested Product Instance	Set Product Instance	SIS OM PMT Service

Workflow Step	Method Called	In Business Service
Get Active Header	Query	EAI Siebel Adapter
Set Output Header	Set Output Header	SIS OM PMT Service
Create Delta	Delta	SIS OM PMT Service
Add Item to Collection	AddItemtoCollection	ABO Bulk Request Processing Service

## ABO Bulk Request - Suspend/Resume Sub-Process Workflow

This workflow creates an order line item when the consolidated action is Suspend or Resume. [Figure 46](#) shows this workflow.

The ABO Bulk Request - Inclusive Process Action Sub-Process Workflow and the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow call this workflow as a subprocess when the consolidated action is Suspend or Resume.

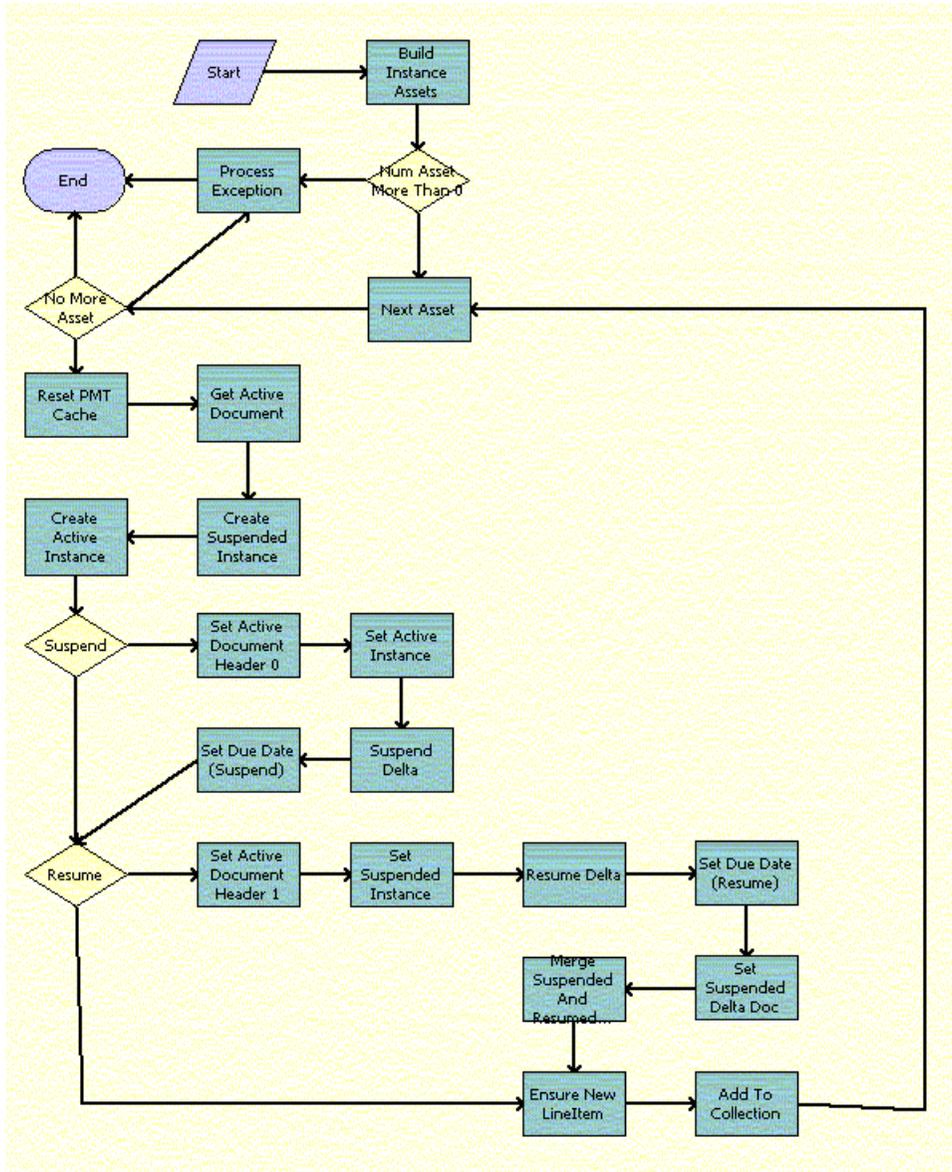


Figure 46. ABO Bulk Request - Suspend/Resume Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Loads the asset records to suspend and resume. If no asset records exist, an exception occurs, and the workflow terminates.

- 2 From the instance asset records created in the previous step, loads into memory the next asset to suspend or resume.
- 3 Clears the business service cache.
- 4 If the user selects the Suspend action, creates the order line item records with Suspend action codes.
- 5 If the user selects the Resume action, creates the order line item records with Resume action codes.
- 6 Merges the Suspend and Resume order line item records.
- 7 Adds the order line items to a collection in memory for synchronization.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Build Instance Assets	BuildInstanceAsset	ABO Bulk Request Processing Service
Process Exception	WriteException	ABO Bulk Request Processing Service
Next Asset	NextObject	ABO Bulk Request Processing Service
Reset PMT Cache	Reset	SIS OM PMT Service
Get Active Document	Query	EAI Siebel Adapter
Create Suspended Instance	Set Field Value	SIS OM PMT Service
Create Active Instance	Set Field Value	SIS OM PMT Service
Set Active Document Header 0	Set Output Header	SIS OM PMT Service
Set Active Instance	Set Product Instance	SIS OM PMT Service
Suspend Delta	Delta	SIS OM PMT Service
Set Due Date (Suspend)	Set Field Value	SIS OM PMT Service
Set Active Document Header 1	Set Output Header	SIS OM PMT Service
Set Suspended Instance	Set Product Instance	SIS OM PMT Service
Resume Delta	Delta	SIS OM PMT Service
Set Due Date (Resume)	Set Field Value	SIS OM PMT Service
Set Suspended Delta Doc	Set Product Instance	SIS OM PMT Service
Merge Suspended and Resumed Items	Merge	SIS OM PMT Service
Ensure New LineItem	Set Field Value	SIS OM PMT Service
Add To Collection	AddItemtoCollection	ABO Bulk Request Processing Service

## ABO Bulk Request - Upgrade Sub-Process Workflow

This workflow creates an order line item when the consolidated action is Upgrade. To upgrade an asset, this workflow deletes the old products for the asset and adds the new products for the asset. To create the order line items for the upgraded asset, this workflow cycles through the existing components of the asset, adds these components as new order line items, and copies the existing field and attribute values for these components to these new order line items. This workflow adds new configured components to the asset and uses attributes for these new configured components on the new order line items. Figure 47 shows this workflow.

The ABO Bulk Request - Inclusive Process Action Sub-Process Workflow and the ABO Bulk Request - All Exclusive Process Action Sub-Process Workflow call this workflow as a subprocess when the consolidated action is Upgrade.

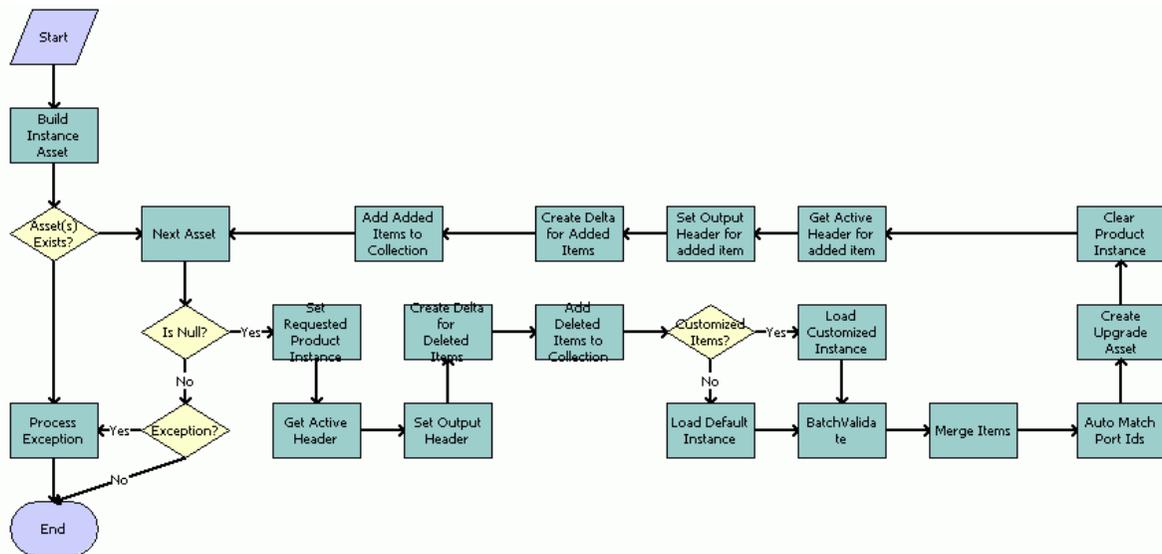


Figure 47. ABO Bulk Request - Upgrade Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Queries the Product ID field of the assets to load the asset records to upgrade.
- 2 From the instance asset records created in the previous step, loads into memory the next asset to upgrade.
- 3 Sets the current asset as the instance from which to create order line records.
- 4 Creates order line item records with Delete action codes.
- 5 Adds the Deleted order line items to a collection in memory for synchronization.
- 6 If the new base product is not customizable, loads the default instance.
- 7 If the new base product is customizable, loads the customized instance.

- 8 Merges the default instance, customized instance, and instance assets into new order line items.
- 9 Sets the new order line items as the instance from which to create order line records.
- 10 Creates order line item records with Add action codes.
- 11 Adds the Add order line item records to a collection in memory for synchronization.

**Associated Business Service Methods.** The following table shows the steps in this workflow that calls business service methods.

Workflow Step	Method Called	In Business Service
Build Instance Asset	BuildInstanceAsset	ABO Bulk Request Processing Service
Next Asset	NextObject	ABO Bulk Request Processing Service
Set Requested Product Instance	Set Product Instance	SIS OM PMT Service
Get Active Header	Query	EAI Siebel Adapter
Set Output Header	Set Output Header	SIS OM PMT Service
Create Delta for Deleted Items	Delta	SIS OM PMT Service
Add Deleted Items to Collection	AddItemtoCollection	ABO Bulk Request Processing Service
Load Customized Instance	LoadCustomizedItems	ABO Bulk Request Processing Service
Load Default Instance	LoadDefaultItems	ABO Bulk Request Processing Service
BatchValidate	BatchValidate	ABO Bulk Request Processing Service
Merge Items	MergeItems	ABO Bulk Request Processing Service
Auto Match Port Ids	AutoMatch	Complex Product AutoMatch Service
Create Upgrade Asset	Convert Product Instance	SIS OM PMT Service
Clear Product Instance	Set Product Instance	SIS OM PMT Service
Get Active Header for added item	Query	EAI Siebel Adapter
Set Output Header for added item	Set Output Header	SIS OM PMT Service
Create Delta for Added Items	Delta	SIS OM PMT Service
Add Added Items to Collection	AddItemtoCollection	ABO Bulk Request Processing Service
Process Exception	WriteException	ABO Bulk Request Processing Service

## ABO Bulk Request - Notify User Sub-Process Workflow

The workflow creates an email message to notify a user about the status of a bulk request. [Figure 48](#) shows this workflow.

The ABO Bulk Request - Submit Process Workflow and the ABO Bulk Request - Parallel Sub Process Workflow call this workflow as a subprocess.

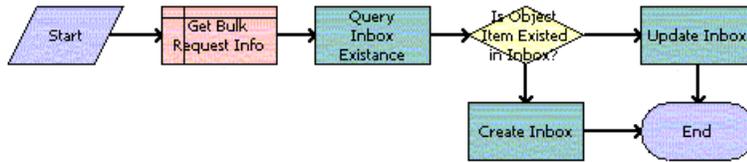


Figure 48. Notify User Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Gets the information about the bulk request to construct a message to inform the user about the status of the request.
- 2 Loads the inbox for the user.
- 3 Checks if the message exists in the user's inbox.
- 4 If the message exists in the user's inbox, updates the message.
- 5 If the message does not exist in the user's inbox, creates a new message in the user's inbox.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Query Inbox Existence	IsInboxItemExisted	Universal Inbox
Update Inbox	UpdateInboxItemInfo	Universal Inbox
Create Inbox	CreateInboxEx	Universal Inbox

## ABO Bulk Request Add Item Customize Process

This workflow customizes a base product. [Figure 49](#) shows this workflow.

A user initiates this workflow by clicking the Add Items button and the Customize button in the Actions applet.

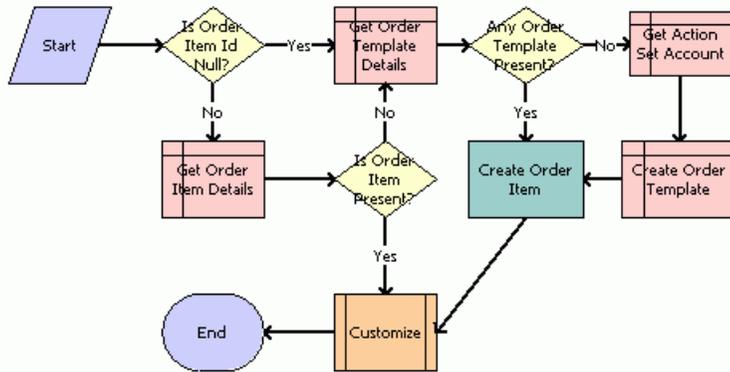


Figure 49. ABO Bulk Request Add Item Customize Process workflow

**Workflow Description.** This workflow:

- 1 Checks if an order item is associated with the action.
- 2 If an order item is associated with the action, gets the details of the order item.
- 3 If no order item is associated with the action, or if the order item product is not the same as the base product, gets the details of the create order template.
- 4 Checks if an order template is successfully retrieved.
- 5 If no order template exists, creates the order item.
- 6 If an order template exists, retrieves the order template and creates the order item.
- 7 Calls the ABO Bulk Request Add Item Customize SubProcess workflow to launch the Configurator runtime session. For more details, see [“ABO Bulk Request Add Item Customize SubProcess” on page 166.](#)

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Create Order Item	ConsolidateItem	ABO Bulk Request Processing Service

## ABO Bulk Request Add Item Customize SubProcess

This workflow launches the Configurator runtime session when a user customizes a base product. [Figure 50](#) shows this workflow.

The ABO Bulk Request Add Item Customize Process workflow calls this workflow as a subprocess.

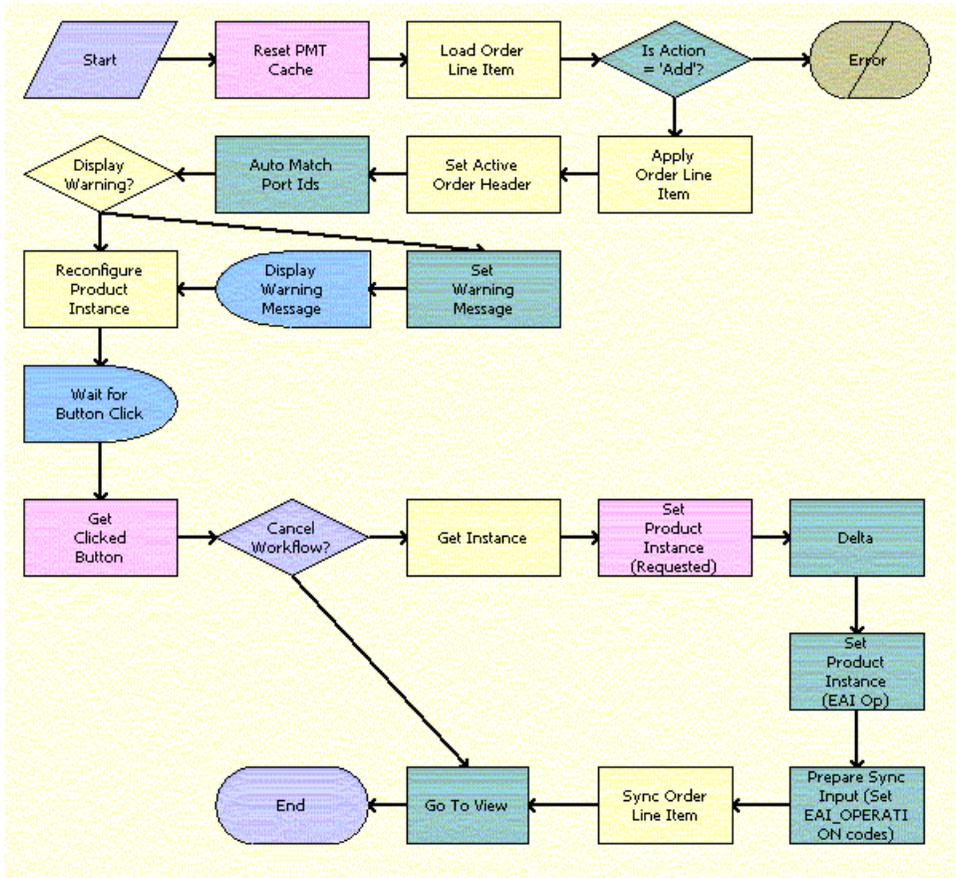


Figure 50. ABO Bulk Request Add Item Customize SubProcess workflow

**Workflow Description.** This workflow:

- 1 Clears the business service cache.
- 2 Loads the current order line item into memory.
- 3 Checks if the action code of the root line item is Add. If the action code of the root item is not Add, terminates the process because of an error.
- 4 If the action code of the root line item is Add, uses the current order line item to generate an asset.
- 5 Stores the order header with which to associate the configured line item.
- 6 Checks if the port IDs for the customized instance match port IDs for the product definition.
- 7 Launches the Configurator runtime session to reconfigure the product instance.
- 8 Waits for the user to click a button to terminate the session.

- 9 Gets the details of the button that the user clicks.
- 10 Checks if the user clicks the Cancel button.
- 11 If the user does not click the Cancel button, gets the configured product instance from the Configurator session.
- 12 Stores the configured product instance.
- 13 Creates the Delta action codes.
- 14 Writes the order line item to the database.
- 15 Displays the Actions applet.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Reset PMT Cache	Reset	SIS OM PMT Service
Load Order Line Item	Query	EAI Siebel Adapter
Apply Order Line Item	Apply	SIS OM PMT Service
Set Active Order Header	Set Output Header	SIS OM PMT Service
Auto Match Port Ids	AutoMatch	Complex Product AutoMatch Service
Reconfigure Product Instance	Reconfigure Product Instance	SIS OM PMT Service
Set Warning Message	SetBusCompFields	Shopping Service
Get Clicked Button	Get Cfg Button Click Information	SIS OM PMT Service
Get Instance	GetInstance	SIS OM PMT Service
Set Product Instance (Requested)	Set Product Instance	SIS OM PMT Service
Delta	Delta	SIS OM PMT Service
Set Product Instance (EAI Op)	Set Product Instance	SIS OM PMT Service
Prepare Sync Input	Compute EAI Operation	SIS OM PMT Service
Sync Order Line Item	Synchronize	SIS OM PMT Service
Go To View	GoToView	ABO Bulk Request GoToView Service

## ABO Bulk Request - Edit Order Line Item

This workflow edits a line item for an order. [Figure 51](#) shows this workflow.

A user initiates this workflow by clicking the Customize button in the Actions applet.

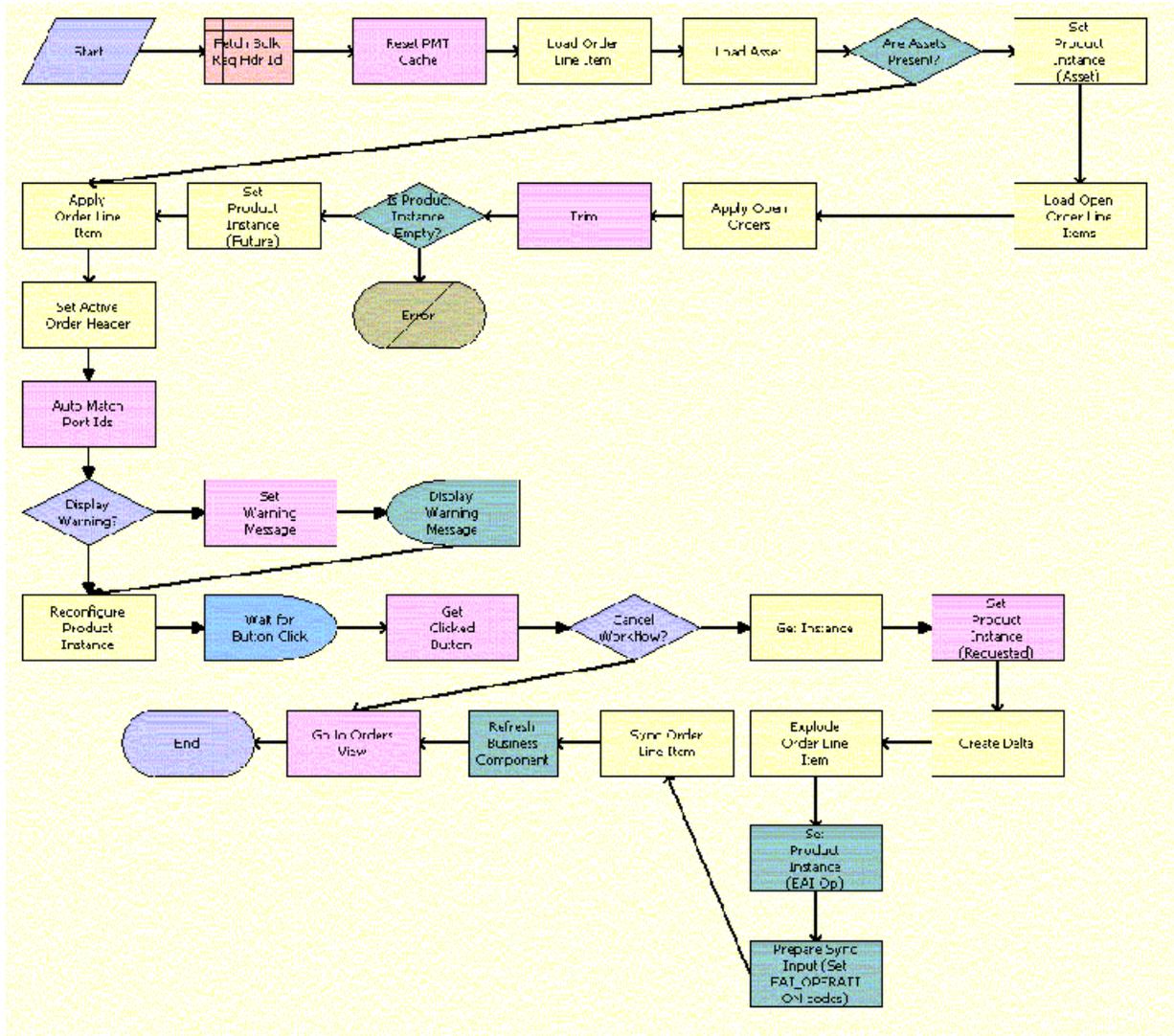


Figure 51. ABO Bulk Request - Edit Order Line Item workflow

**Workflow Description.** This workflow:

- 1 Clears the business service cache.
- 2 Loads the current order line item into memory.
- 3 Loads assets into memory.
- 4 Checks if an asset exists for the order line item. If an asset exists, applies the order line item to the asset.
- 5 If an asset does not exist, uses the current order line item to generate an asset.

- 6 Stores the order header with which to associate the edited line item.
- 7 Checks if the port IDs for the edited instance match port IDs for the product definition.
- 8 Launches the Configurator runtime session to reconfigure the product instance.
- 9 Waits for the user to click a button to terminate the session.
- 10 Gets the details of the button that the user clicks.
- 11 Checks if the user clicks the Cancel button.
- 12 If the user does not click the Cancel button, gets the configured product instance from the Configurator session.
- 13 Stores the configured product instance.
- 14 Creates the Delta action codes.
- 15 Writes the order line item to the database.
- 16 Displays the Orders applet.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Reset PMT Cache	Reset	SIS OM PMT Service
Load Order Line Item	Query	EAI Siebel Adapter
Load Asset	Query	EAI Siebel Adapter
Set Product Instance (Asset)	Set Product Instance	SIS OM PMT Service
Load Open Order Line Items	Find Orders	SIS OM PMT Service
Apply Open Orders	Apply	SIS OM PMT Service
Trim	Trim	SIS OM PMT Service
Set Product Instance (Future)	Set Product Instance	SIS OM PMT Service
Apply Order Line Item	Apply	SIS OM PMT Service
Set Active Order Header	Set Output Header	SIS OM PMT Service
Auto Match Port Ids	AutoMatch	Complex Product AutoMatch Service
Set Warning Message	SetBusCompFields	Shopping Service
Reconfigure Product Instance	Reconfigure Product Instance	SIS OM PMT Service
Get Clicked Button	Get Cfg Button Click Information	SIS OM PMT Service
Get Instance	GetInstance	SIS OM PMT Service
Set Product Instance (Requested)	Set Product Instance	SIS OM PMT Service
Create Delta	Delta	SIS OM PMT Service

Workflow Step	Method Called	In Business Service
Explode Order Line Item	Explode	SIS OM PMT Service
Set Product Instance (EAI Op)	Set Product Instance	SIS OM PMT Service
Prepare Sync Input	Compute EAI Operation	SIS OM PMT Service
Sync Order Line Item	Synchronize	SIS OM PMT Service
Refresh Business Component	Refresh Business Component	SIS OM PMT Service
Go to Orders View	GoToView	ABO Bulk Request GoToView Service

## ABO Bulk Request - Clear Exception Process Workflow

This workflow clears an exception record. [Figure 52](#) shows this workflow.

A user initiates this workflow by clicking the Clear button in the Exceptions view.

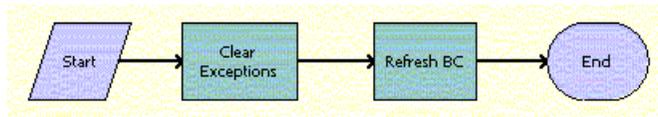


Figure 52. ABO Bulk Request - Clear Exception Process Workflow

**Workflow Description.** This workflow:

- 1 Iterates through the selected exception records and calls the ABO Bulk Request - Clear Exception Sub-Process Workflow for each record. For more details, see [“ABO Bulk Request - Clear Exception Sub-Process Workflow”](#) on page 171.
- 2 Refreshes the user interface.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Clear Exceptions	Iterate Process For Selected Rows	SIS OM PMT Service
Refresh BC	Refresh Business Component	SIS OM PMT Service

## ABO Bulk Request - Clear Exception Sub-Process Workflow

This workflow sets the cleared date when a user clears an exception record. [Figure 53](#) shows this workflow.

The ABO Bulk Request - Clear Exception Process Workflow calls this workflow as a subprocess.



Figure 53. ABO Bulk Request - Clear Exception Sub-Process Workflow

**Workflow Description.** This workflow:

Sets the value of the cleared field to the current date.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Set Clear Date	SetClearDate	ABO Bulk Request Processing Service

## ABO Bulk Request - Reset Process Workflow

This workflow resets an exception record. [Figure 54](#) shows this workflow.

A user initiates this workflow by clicking the Reset button in the Exceptions view.

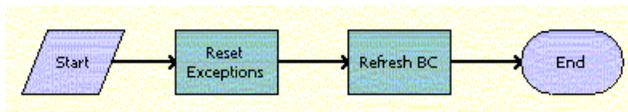


Figure 54. ABO Bulk Request - Reset Process Workflow

**Workflow Description.** This workflow:

- 1 Iterates through the selected exception records and calls the ABO Bulk Request - Reset Process Sub-Process Workflow for each record. For more details, see [“ABO Bulk Request - Reset Process Sub-Process Workflow” on page 173](#).
- 2 Refreshes the user interface.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Reset Exceptions	Iterate Process For Selected Row	SIS OM PMT Service
Refresh BC	Refresh Business Component	SIS OM PMT Service

## ABO Bulk Request - Reset Process Sub-Process Workflow

This workflow sets the cleared date and the user's Submit flag when a user resets an exception record. [Figure 55](#) shows this workflow.

The ABO Bulk Request - Reset Process Workflow calls this workflow as a subprocess.

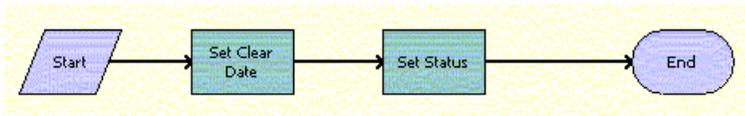


Figure 55. ABO Bulk Request - Reset Process Sub-Process Workflow

**Workflow Description.** This workflow:

- 1 Sets the value of the cleared field to the current date.
- 2 Updates the status of the action set, action, and instance, as applicable. Updates the status of the action set to To Process only if all actions and instances for the action set are not in an error state.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Set Clear Date	SetClearDate	ABO Bulk Request Processing Service
Set Status	UpdateStatus	ABO Bulk Request Processing Service

## ABO Bulk Request - Cancel Process Workflow

This workflow terminates a bulk request submission. [Figure 56](#) shows this workflow.

A user initiates this workflow by clicking the Cancel Request button on the Bulk Request form or the Bulk Request List view.

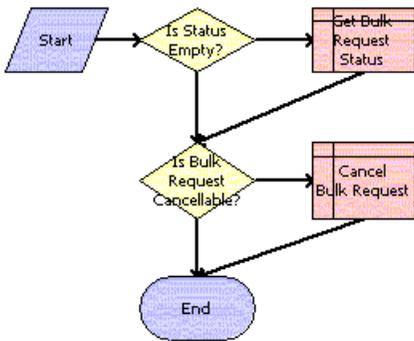


Figure 56. ABO Bulk Request - Cancel Process Workflow

**Workflow Description.** This workflow:

- 1 Checks the status of the bulk request.
- 2 If the status is Queued or Processing, sets the status to Cancel Pending.

## Workflow for Prepaid Services

This workflow retrieves and displays data from a billing application. It consists of one workflow process, “SIA External Integration Process” on page 174.

### SIA External Integration Process

This workflow retrieves and displays data from a billing application. This data consists of information about top-up requests, current account balances, and usage activity for an account. Figure 57 shows this workflow.

A user initiates this workflow in the Account Summary - Prepaid view by selecting an installed asset and clicking the Refresh button in any of the following applets: Top-Up Requests, Current Balance, or Usage.

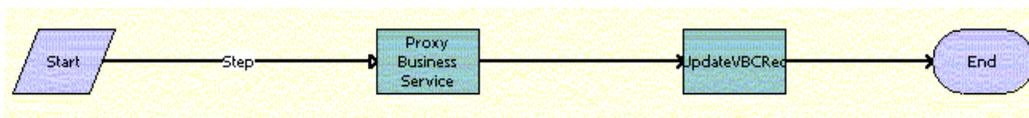


Figure 57. SIA External Integration Process Workflow

**Workflow Description.** This workflow:

- 1 Calls the proxy business services that are created based on the WSDL from the billing application.
- 2 Gets synchronously the XML response from the billing application.
- 3 If no errors exist, updates the virtual business component with the data from the billing application.

**NOTE:** The administrator must create the proxy business services that this workflow calls. Also, for the virtual business components (VBCs) that use these services, the administrator must configure the user properties. For more information, see [“Process of Configuring Prepaid Services” on page 81](#).

**Associated Business Service Methods.** The following table shows the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Proxy Business Service	process	CUTAccountPrepaidTopup
Proxy Business Service	process	CUTAccountPrepaidCurrentBalance
Proxy Business Service	process	CUTAccountPrepaidUsage
Proxy Business Service	process	CUTAccountAssetPrepaidTopup
Proxy Business Service	process	CUTAccountPrepaidNewTopup

The business service names depend on the Name tags in the WSDL file that the administrator generates when creating the proxy business services.

## Workflows to Calculate Prices for Orders

This group of workflows performs price calculations for orders. It consists of the following workflow processes:

- [“Basic Pricing Procedure” on page 176](#)
- [“Dynamic Pricing Procedure” on page 179](#)
- [“Pricing Procedure - Calculate Net Price” on page 181](#)

## Basic Pricing Procedure

This workflow provides basic Pricer license functionality where the list price, volume discounts, and service pricing are supported. Figure 58 shows this workflow.

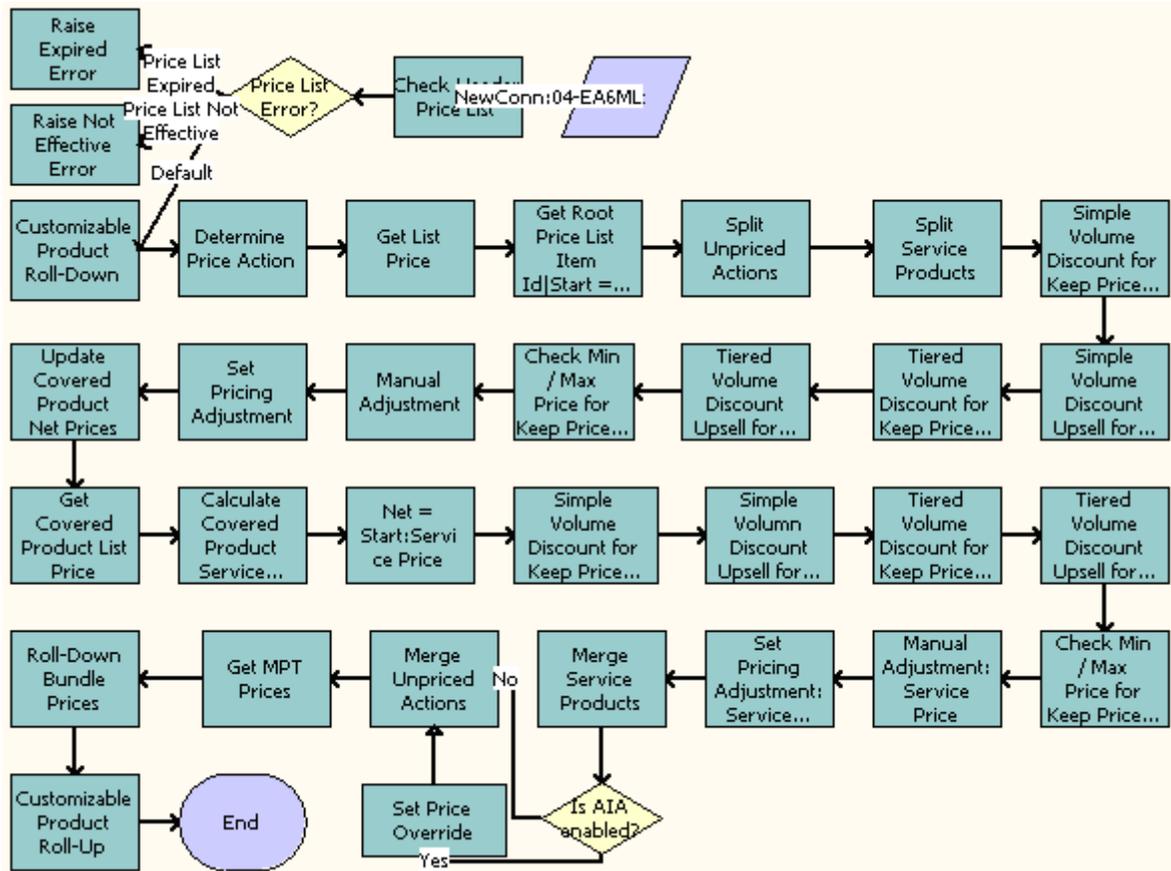


Figure 58. Basic Pricing Procedure Workflow

**Workflow Description.** This workflow:

- 1 Stamps error codes by checking for various conditions on the Price list.
- 2 From the error codes stamped in step 2, branches out to the different actions listed in step 4.
- 3 Does the following:
  - a Raises Expired Error
  - b Raises Not Expired Error
  - c Calculates the quantity of each component in a customizable product instance, and rolls down the price list ID and promotion ID from the root.
- 4 Determines the price action code based on the Action Code and Price Type of the item. Skips the Reprice functionality if the Override Reprice Flag is set to Y.

- 5 Using the Simple Look-up Transform business service, searches for the correct price list and stamps various price fields on the line item.
- 6 Gets Root Price List Item Id|Start = List|Net = Start.
- 7 Splits unpriced actions.  
**NOTE:** Do not price line items with Skip Pricing Flag = 'Y'.
- 8 Splits service and non-service line items so they can be priced separately.  
**NOTE:** In this Pricing Procedure, products and service products need to be split and handled differently. Service procedures are really services that are tied to products, for example a maintenance service on a car. The pricing of a service is tied to the product it covers. Later in this workflow, steps named XXX service Pricing will consume the Service Product Row Set.
- 9 Applies the volume discount adjustment that matches the quantity on the line item.
- 10 Finds out the upsell discount information.
- 11 Applies tiered volume discounts to the net price.
- 12 Finds out the tiered upsell discount information.
- 13 Forces the net price to be within the minimum and maximum values defined in the price list item.
- 14 Sets the manual adjustment and applies line item and header-level manual discounts.
- 15 Sets the pricing adjustment. Before adjustments and discounts, the Net Price = Start Price.
- 16 Updates the net price for any covered products that were repriced.
- 17 Looks up the list price information for covered products.
- 18 Calculates the start price for the service product by applying the percentage in the price list item to the net or start price of the covered product.
- 19 Before adjustments and discounts, ensures that the Net Price = Start Price.
- 20 Applies the volume discount adjustment that matches the quantity on the line item.
- 21 Determines the upsell discount information.
- 22 Applies tiered volume discounts to the net price.
- 23 Determines the tiered upsell discount information.
- 24 Applies line item and header-level manual discounts.
- 25 Merges service and non-service line items.
- 26 Checks whether the Enable AIA Comms system preference is set to TRUE.
- 27 Checks whether any manual adjustments have been applied to the line items that are being processed. If manual adjustments have been applied to the line items, changes the Pricing Commit Type to Committed.  
**NOTE:** This step is called *only* if the Enable AIA Comms system preference is enabled and set to TRUE.
- 28 Merges unpriced line items.
- 29 Gets the MPT Prices and the NRC and MRC price components.

**30** Spreads discounts from bundle product root to subcomponents.

**31** Calculates the total extended price of the customizable product, including all subcomponents.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Check Header Price List	Query Transform	Row Set Transformation Toolkit Service
Raise Expired Error	Raise Price List Expired Error	Pricing Manager
Raise Not Effective Error	Raise Price List Not Effective Error	Pricing Manager
Customizable Product Roll-Down	Hierarchical Transform	Row Set Transformation Toolkit Service
Get List Price	Hierarchical Transform	Row Set Transformation Toolkit Service
Split Unpriced Actions	Split	Row Set Transformation Toolkit Service
Set Pricing Adjustment	Split Transform	Row Set Transformation Toolkit Service
Update Covered Product Net Prices	Row Set Lookup Transform	Row Set Transformation Toolkit Service
Update Covered Product Net Prices	Row Set Lookup Transform	Row Set Transformation Toolkit Service
Update Covered Product Net Prices	Row Set Lookup Transform	Row Set Transformation Toolkit Service
Merge Service Products	Merge Transform	Row Set TransformationToolkit Service
Merge Unpriced Actions	Hierarchical Transform	Row Set TransformationToolkit Service
Get MPT Prices	Conditional Action Transform	Row Set TransformationToolkit Service
Roll-Down Bundle Prices	Hierarchical Transform	Row Set Transformation Toolkit Service
Customizable Product Roll-Up	Hierarchical Transform	Row Set Transformation Toolkit Service

## Dynamic Pricing Procedure

This workflow provides advanced pricing capabilities. It contains steps and subprocedures that populate the List Price, Start Price, and Net Price fields. It also calculates the monthly recurring and nonrecurring subtotals for root customizable products. These prices and subtotals are calculated based on information from price lists, customizable product adjustments, volume discounts, attribute adjustments, aggregate discounts, service price details, product promotions, and manual discounts. Figure 59 shows this workflow.

The Dynamic Pricing Procedure workflow, as shown in Figure 59,

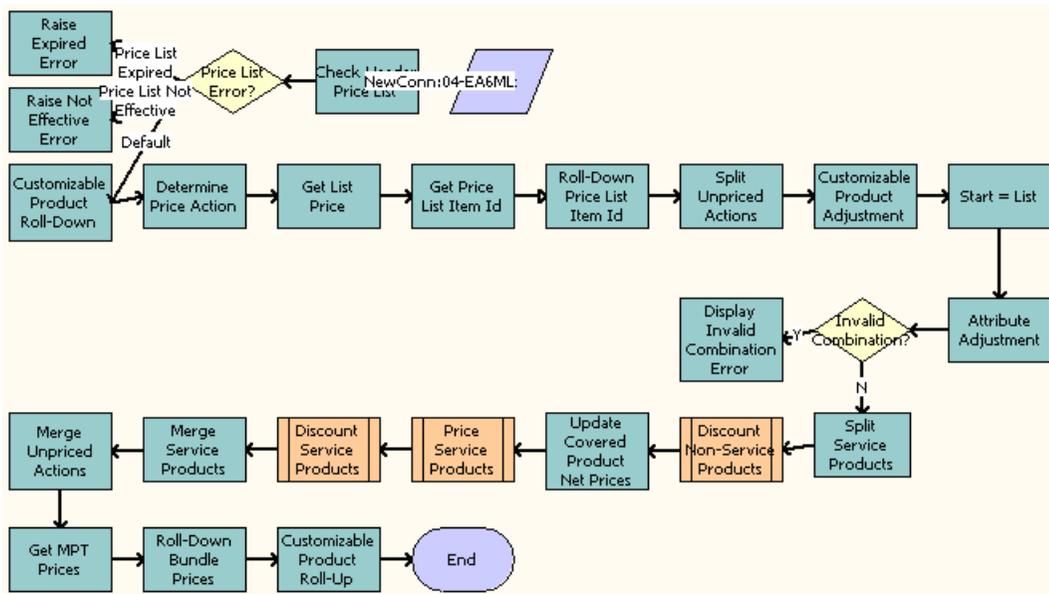


Figure 59. Dynamic Pricing Procedure Workflow

**Workflow Description.** This workflow:

- 1 Checks for price list effectivity. The application will throw an error if the price list is not yet effective or has expired.
- 2 Calculates the extended quantity of all component products of a CP instance. Also, it carries over some useful information from the CP root to CP components for later use.
- 3 Determines the price action code based on the item Action Code and Price Type. Skips the Reprice functionality if the Override Reprice Flag is set to Y.
- 4 Gets the list price for each row in the row set, and appends other values from the Price List Item Buscomp to the row.
- 5 Puts the CP Root Price List Item Id on each component of the CP for later use.
- 6 Moves those rows with an action code that are not priced to another row set that will not be priced throughout the procedure.
- 7 Gets CP Pricing Designer adjustments for components of a CP.

- 8 Initializes the start price value as the list price value.
- 9 Applies attribute adjustments to the start price and throws an error when an invalid combination for attribute pricing occurs.
- 10 Moves service products from the row set into another row set for use in the service pricing sub procedure.
- 11 Calls sub procedure Pricing Procedure - Calculate Net Price for non-service products.
- 12 Updates the covered product net price field on the service product rows in the row set.
- 13 Calls sub procedure Pricing Procedure – Service to handle the service product-specific pricing for service products.
- 14 Calls sub procedure Pricing Procedure - Calculate Net Price for service products.
- 15 Merges the service and non-service row sets into one row set.
- 16 Establishes the NRC and MRC prices for one-time and monthly recurring price types, which will later be used for Customizable Product Rollup.
- 17 Merges the priced and unpriced row sets into one row set.
- 18 Spreads the discount of the root bundle products to the bundle component products.
- 19 Rolls up the prices of component products to the CP root.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Check Header Price List	Query Transform	Row Set Transformation Toolkit Service
Raise Expired Error	Raise Price List Expired Error	Pricing Manager
Raise Not Effective Error	Raise Price List Not Effective Error	Pricing Manager
Customizable Product Roll-Down	Hierarchical Transform	Row Set Transformation Toolkit Service
Get List Price	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Get Root Price List Item Id	Hierarchical Transform	Row Set Transformation Toolkit Service
Split Unpriced Actions	Split Transform	Row Set Transformation Toolkit Service
Customizable Product Adjustment	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Start = List	Conditional Action Transform	Row Set Transformation Toolkit Service

Workflow Step	Method Called	In Business Service
Matrix Adjustment	Dynamic Lookup Transform	Row Set Transformation Toolkit Service
Display Invalid Combination Error	Throw Invalid Combination Error	Dynamic Matrix Retrieval Service
Split Service Products	Split	Row Set Transformation Toolkit Service
Update Covered Product Net Prices	Row Set Lookup Transform	Row Set Transformation Toolkit Service
Merge Service Products	Merge Transform	Row Set Transformation Toolkit Service
Get MPT Prices	Conditional Action Transform	Row Set Transformation Toolkit Service
Merge Unpriced Actions	Merge Transform	Row Set Transformation Toolkit Service
Roll-down bundle prices	Hierarchical Transform	Row Set Transformation Toolkit Service
Customizable Product Roll-ups	Hierarchical Transform	Row Set Transformation Toolkit Service

## Pricing Procedure - Calculate Net Price

This workflow is responsible for the net price calculation, which takes into account volume discount, aggregate discount sequence, product promotion, manual adjustment and minimum or maximum price bound checks. Figure 60 shows this workflow.

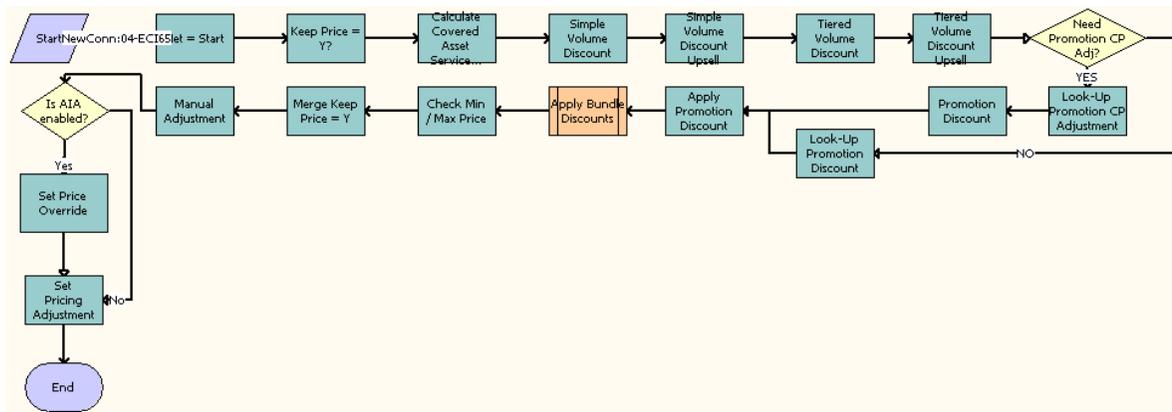


Figure 60. Pricing Procedure - Calculate Net Price Workflow

**Workflow Description.** This workflow:

- 1 Initializes the net price value as the start price value.
- 2 Queries in FS Product Price Item Details Buscomp for any covered asset service pricing adjustment.
- 3 Moves those rows with the Exclude Pricing flag set to another the Keep Price Row Set row set. This will skip all system-generated discounts throughout the procedure.
- 4 Applies a manual adjustment (discount amount, discount percentage, discount price and header discount percentage) for the row set with Exclude Pricing flag Set.
- 5 Sets the pricing adjustment that indicates the total amount of system-generated discount accounts for the row with Exclude Pricing flag set to Y. Also sets the value of a temporary variable, Temp Pricing Commit Type, to the value of the Pricing Commit Type of the promotional product for component-level products that have adjustments defined.
- 6 Evaluates simple and tiered volume discount. This would also populate the next discount and upsell message for upsell purposes.
- 7 Evaluates product promotion discounts.
  - a Checks whether a promotion discount is defined. Also sets the value of a temporary variable, Temp Pricing Commit Type, to the value of the Pricing Commit Type of the promotional product for root-level products that have adjustments defined.
  - b Applies the promotion discount found in the previous step. Also sets the Pricing Commit Type to Committed for any root-level products to which committed promotions are applied.

**NOTE:** This step is called *only* if the Enable AIA Comms system preference is enabled and set to TRUE.
- 8 Calls the Pricing Procedure - Bundle Discount sub procedure to evaluate the aggregate discount sequence.
- 9 Checks if the current net price is within the boundary of the minimum and maximum price.
- 10 Applies a manual adjustment (discount amount, discount percentage, discount price and header discount percentage).
- 11 Checks whether the Enable AIA Comms system preference is set to TRUE.
- 12 Checks whether any manual adjustments or promotional discounts have been applied to the line items that are being processed. If manual adjustments or promotional discounts have been applied to the line items, changes the Pricing Commit Type to Committed.

**NOTE:** This step is called *only* if the Enable AIA Comms system preference is enabled and set to TRUE.
- 13 Sets the pricing adjustment that indicates the total amount of system-generated discount accounts.
- 14 Merges the two row sets generated from the Keep Price = Y? back into one row set.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Name	Method	Business Service
Net = Start	Conditional Action Transform	Row Set Transformation Toolkit Service
Calculate Covered Asset Service Price	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Keep Price = Y?	Split Transform	Row Set Transformation Toolkit Service
Manual Adjustment for Keep Price = Y	Conditional Action Transform	Row Set Transformation Toolkit Service
Set Pricing Adj for Keep Price = Y	Conditional Action Transform	Row Set Transformation Toolkit Service
Simple Volume Discount	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Simple Volume Discount Upsell	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Tiered Volume Discount	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Tiered Volume Discount Upsell	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Look-Up Promotion Discount	Simple Look-Up Transform	Row Set Transformation Toolkit Service
Apply Promotion Discount	Conditional Action Transform	Row Set Transformation Toolkit Service
Check Min or Max Price	Conditional Action Transform	Row Set Transformation Toolkit Service
Manual Adjustment	Conditional Action Transform	Row Set Transformation Toolkit Service
Set Pricing Adjustment	Conditional Action Transform	Row Set Transformation Toolkit Service
Merge Keep Price = Y	Merge Transform	Row Set Transformation Toolkit Service

## Workflows to Process an Order

This group of workflows performs various order processing operations. It consists of the following workflow processes:

- [“SWI Initial Load Non CP Order Release Workflow” on page 184](#)
- [“SWIOrderUpsert\\_O2C Workflow” on page 185](#)

- “SWI Configurator Load Workflow” on page 185
- “Oracle Configurator Load Workflow” on page 186
- “SWISendATPCheck Workflow” on page 187
- “SWISendATPCheckLine Workflow” on page 188
- “SWISendCalculateShippingCharge Workflow” on page 189
- “SWISendOrder Workflow” on page 190
- “SWIReviseOrderValidation Workflow” on page 191
- “SWICopyOrder” on page 192
- “Verify Header (Order)” on page 193
- “Verify Item (Order)” on page 194
- “SWIValidateDependentOrders” on page 194
- “SWIOrderUpsert Workflow” on page 195
- “SWI TSQ Order Workflow” on page 197

## SWI Initial Load Non CP Order Release Workflow

This workflow releases all the products that have been locked during initial load. It is called when Product job is run.

Figure 61 illustrates this workflow.

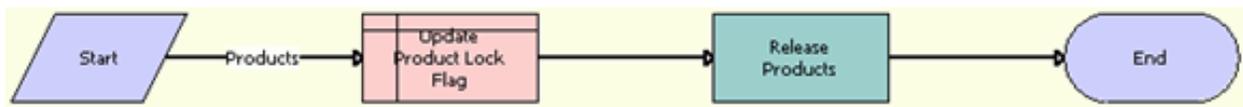


Figure 61. SWI Initial Load Non CP Order Release Workflow

**Workflow Description.** This workflow performs the following actions:

- 1 **Update Product Lock Flag.** Updates the Prod Locked Flag field to Y.
- 2 **Release Products.** Calls the ISS Authoring Import Export Service business service to release the products.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Release Products	ReleaseSingleObject	ISS Authoring Import Export Service

## SWI OrderUpsert\_O2C Workflow

This workflow updates an order’s details to the Siebel Business Application. It is called by the parent workflow SWIOrderUpsert depending on the value of the system preference Enable AIA OrderToCash.

Figure 62 illustrates this workflow.



Figure 62. SWIOrderUpsert\_O2C

**Workflow Description.** This workflow performs the following actions:

- **Call Upsert.** Inserts or updates the order status and other details that are obtained from the payload.

**Associated Business Service Methods.** The following table describes the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Call Upsert	InsertOrUpdate	SWI Order Upsert

## SWI Configurator Load Workflow

This workflow is called to start Oracle Configurator, which is launched only when the system preference Enable AIA OrderToCash is set to True and the product type is Oracle Product. This workflow is called by the parent process SWI Configurator Load, which is called when the user clicks the Customize button in the Quotes or Sales Order screen.

Figure 63 illustrates this workflow.

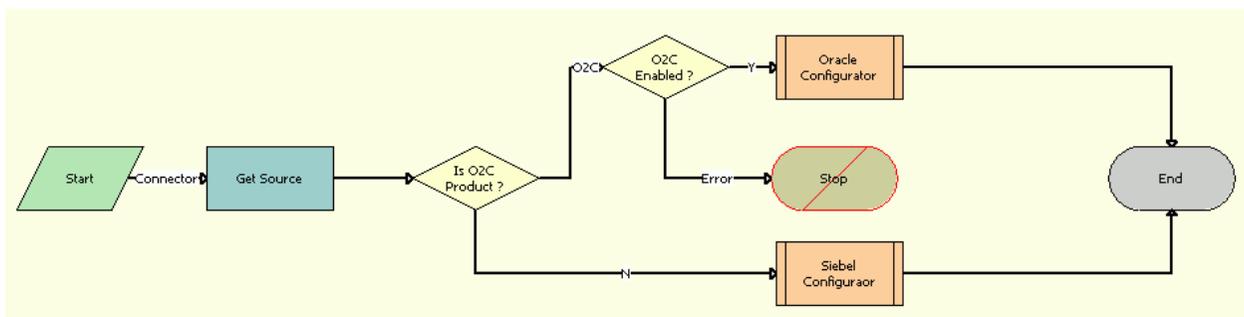


Figure 63. SWI Configurator Load

**Workflow Description.** This workflow performs the following actions:

- 1 **Get Source.** Calls the Inbound E-mail Database Operations business service to acquire product information.
- 2 **Is O2C Product.** Determines whether the product is an Oracle product.
- 3 **O2C Enabled.** Determines whether the Enable AIA OrderToCash system preference is set to True.
- 4 **Oracle Configurator.** Calls the Oracle Configurator Load sub process.
- 5 **Siebel Configurator.** Calls the Configurator Load sub process.

**Associated Business Service Methods.** The following table describes the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Get Source	GetFieldValues	Inbound E-mail Database Operations

## Oracle Configurator Load Workflow

This workflow is called to start Oracle Configurator, which is launched only when the system preference Enable AIA OrderToCash is set to True and the product type is Oracle Product. This workflow is called by the parent process SWI Configurator Load.

Figure 64 illustrates this workflow.

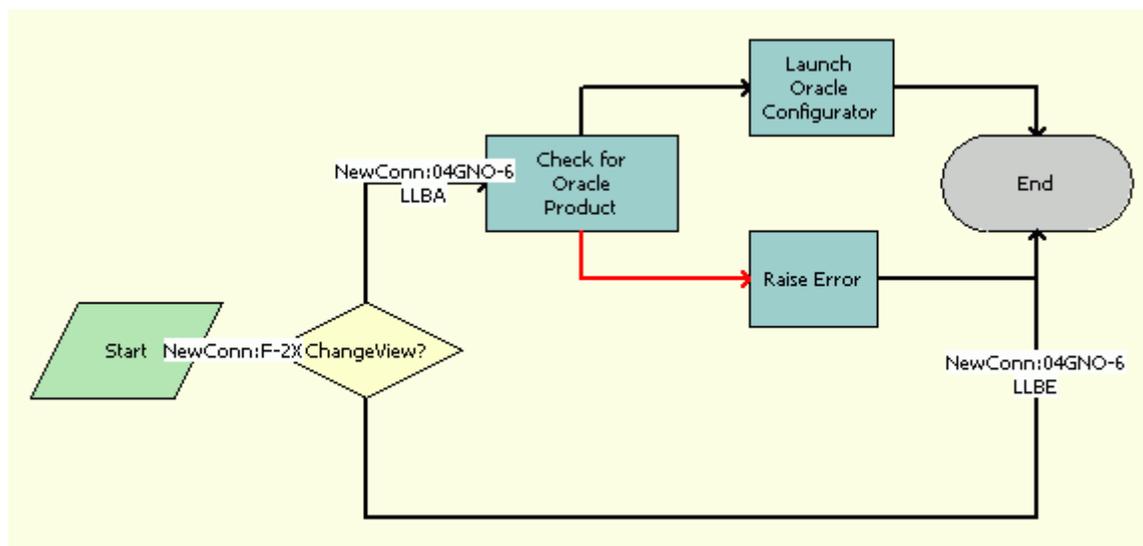


Figure 64. Oracle Configurator Load

**Workflow Description.** This workflow performs the following actions:

- 1 **Change View.** Uses the Change View process property to determine whether or not to change the view.
- 2 **Check for Oracle Product.** Calls the CZSessionManagement business service to determine whether the product is an Oracle product.
- 3 **Launch Oracle Configurator.** Calls the CZSessionManagement business service to start the Oracle Configurator.
- 4 **Raise Error.** Calls the CZSessionManagement business service to raise an error.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Check for Oracle Product	IsOracleConfigurableProduct	CZSessionManagement
Launch Oracle Configurator	LaunchConfigurator	CZSessionManagement
Raise Error	RaiseNonOracleProductError	CZSessionManagement

## SWISendATPCheck Workflow

This workflow checks whether a requested product is available and determines where the product resides in the inventory. It is called when the user clicking on InquireAll button in the Shipping view, Fulfillment applet.

Figure 65 illustrates this workflow.

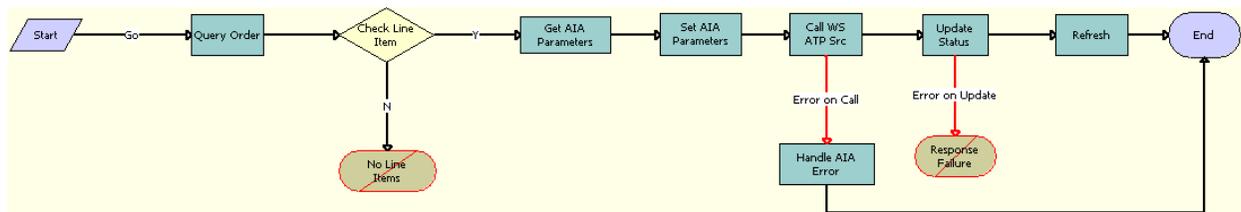


Figure 65. SWISendATPCheck

**Workflow Description.** This workflow performs the following actions:

- 1 **Query Order.** Calls the SWI Order ATP WS business service to query for the order details.
- 2 **Check Line Item.** Runs a query to obtain the details of the order line item.
- 3 **Get AIA Parameters.** Gets the Siebel Enterprise Server details and other parameters.
- 4 **Set AIA Parameters.** Formats the parameters into Siebel message format.
- 5 **Call WS ATP Svc.** Calls the outbound Web service and sends the payload.
- 6 **Handle AIA Error.** If an error occurs in the prior step, then this step catches the error.
- 7 **Update Status.** Updates ATP details.

**8 Refresh.** This step refreshes the applet so the synchronized information is displayed in the Siebel Business Application.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

## SWISendATPCheckLine Workflow

Workflow Step	Method Called	In Business Service
Query Order	QueryById	SWI Order ATP WS
Get AIA Parameters	GetEnterpriseParameters	WI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS ATP Svc	CheckATP	CheckATPSalesOrderSiebelReqABCServiceImplService
Handle AIA Error	CheckAndSetError	SWI External Integration Service
Update Status	Upsert	EAI Siebel Adapter
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation

This workflow acquires information about Sales Order shipping costs for a single line item. It is called when the user navigates to the Fulfillment view and clicks Inquire.

Figure 66 illustrates this workflow.

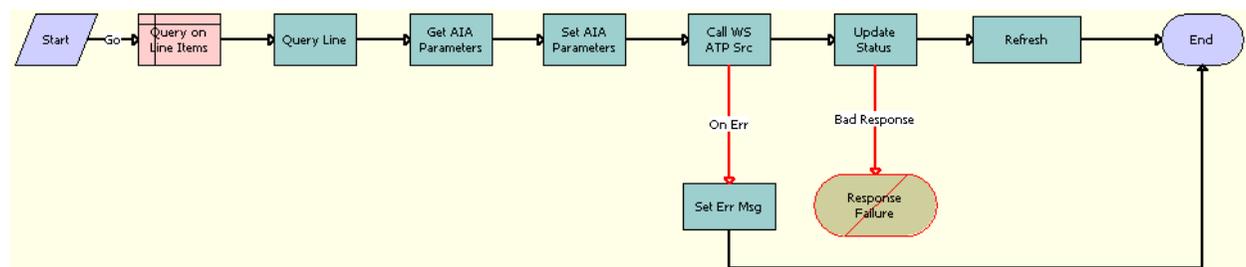


Figure 66. SWISendATPCheckLine

**Workflow Description.** This workflow performs the following actions:

- 1 Query on Line Items.** Queries the Order Entry - Line Items business component to obtain the Line Item Id.
- 2 Query Line.** Runs a query to obtain the details of the order line item.
- 3 Get AIA Parameters.** Gets the Siebel Enterprise Server details and other parameters.

- 4 **Set AIA Parameters.** Formats the parameters into Siebel message format.
- 5 **Call WS ATP Svc.** Calls the outbound Web service and sends the payload.
- 6 **Set Err Msg.** If an error occurs in the prior step, then this step displays an error message.
- 7 **Update Status.** Updates ATP details.
- 8 **Refresh.** This step refreshes the applet so the synchronized information is displayed in the Siebel Business Application.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Query Line	Query	EAI Siebel Adapter
Get AIA Parameters	GetEnterpriseParameters	SWI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS ATP Svc	CheckATP	CheckATPSalesOrderSiebelReqABCServiceImplService
Set Err Msg	CheckAndSetError	SWI External Integration Service
Update Status	Upsert	EAI Siebel Adapter
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation

## SWI SendCalculateShippingCharge Workflow

This workflow acquires information about Sales Order shipping costs. It is called when the user clicks the Shipping and Tax button in the Shipping view, Ship To applet.

Figure 67 illustrates this workflow.

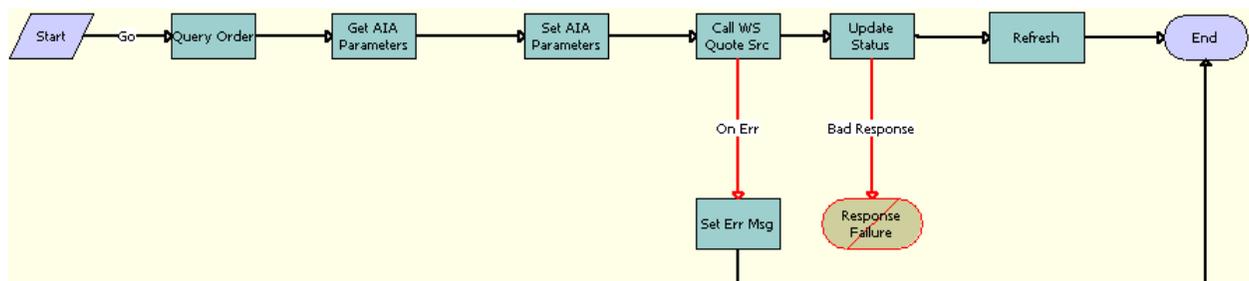


Figure 67. SWISendCalculateShippingCharge

**Workflow Description.** This workflow performs the following actions:

- 1 **Query Order.** Runs a query to obtain the details of the order.
- 2 **Get AIA Parameters.** Gets the Siebel Enterprise Server details and other parameters.
- 3 **Set AIA Parameters.** Formats the parameters into Siebel message format.
- 4 **Call WS Quote Svc.** Calls the outbound Web Service and sends the payload.
- 5 **Set Err Msg.** If an error occurs in the prior step, then this step displays an error message.
- 6 **Update Status.** Updates the shipping charge details.
- 7 **Refresh.** This step refreshes the applet so the synchronized information is displayed in the Siebel Business Application.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Query Order	QueryById	SWI Order Upsert
Get AIA Parameters	GetEnterpriseParameters	SWI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS Quote Svc	CalculateShippingCharge	CalculateShippingChargeSalesOrderSiebelReqABCSImpl Service
Set Err Msg	CheckAndSetError	SWI External Integration Service
Update Status	Upsert	EAI Siebel Adapter
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation

## SWISendOrder Workflow

This workflow submits an order into AQ. It is specific to the Order To Cash Process Integration Pack. It is called by the parent workflow Submit Order ASI when the system preference Enable Order to Cash is set to TRUE.

Figure 68 illustrates the SWISendOrder workflow.

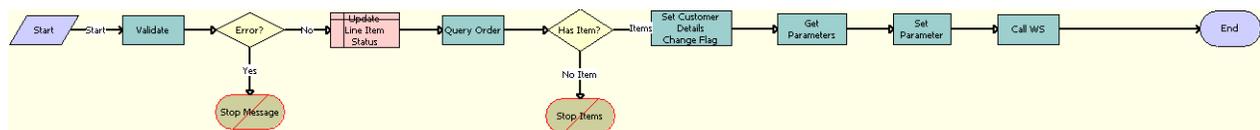


Figure 68. SWISendOrder

**Workflow Description.** This workflow performs the following actions:

- 1 **Validate.** Validates the input values.
- 2 **Error?** Determines whether a validation violation occurred.
- 3 **Stop Message.** Workflow execution is stopped if an error has occurred.
- 4 **Update Line Item Status.** Updates the Status field.
- 5 **Query Order.** Queries for the Order Id that must be submitted.
- 6 **Has item?** Checks if there are any line items for the order.
- 7 **Stop Items.** Workflow execution is stopped if no line items are present.
- 8 **Set Customer Details Change Flag.** Calls the subsequent business service.
- 9 **Get Parameters.** Gets the details of the Siebel Enterprise Server, language, and local values for the Siebel Server.
- 10 **Set Parameters.** Sets the details of the Siebel Enterprise Server, language, and local values in the request message to make an outbound service call.
- 11 **Call WS.** Calls the Web service that puts the message in Advanced Queue (AQ).

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Validate	Validate	FINS Validator
Query Order	QueryById	SWI Order Upsert
Set Customer Details Change Flag	SetPreviousFlags	SWI External Integration Service
Get Parameters	GetEnterpriseParameters	SWI External Integration Service
Set Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS	process	SWISubmitOrder_o2c

## SWI ReviseOrderValidation Workflow

This workflow validates an order for revision. It is specific to the Order To Cash Process Integration Pack in that it verifies whether an order can be revised. It is called when the user clicks the Revise button in the Sales Order Screen.

Figure 69 illustrates the SWIReviseOrderValidation workflow.

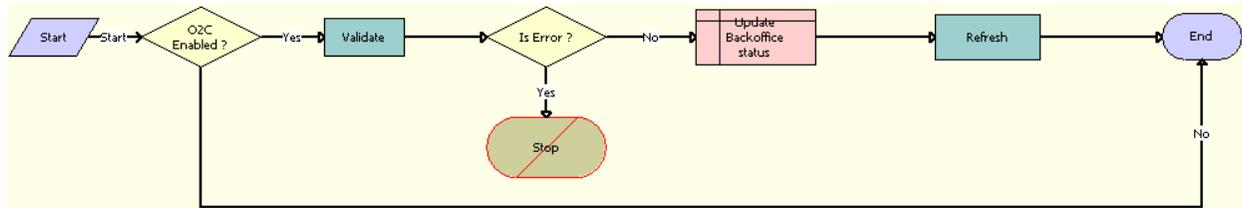


Figure 69. SWIReviseOrderValidation

**Workflow Description.** This workflow performs the following actions:

- 1 **O2C Enabled?** Examines the Enable AIA OrderToCash system preference. If Enable AIA OrderToCash is set to False, then the workflow proceeds to the end step.
- 2 **Validate.** Runs validation on the input values.
- 3 **Is Error?** Checks if an error is found. If an error is found, then the workflow proceeds to the stop step.
- 4 **Stop.** Workflow execution is stopped if the Order cannot be revised.
- 5 **Update Back office Status.** Updates the value of the BackOfficeProcessStatus field.
- 6 **Refresh.** If the contact synchronizes successfully, then this step refreshes the Contact view so that the synchronized account is included in the Siebel client.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Validate	Validate	FINS Validator method
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation

## SWI CopyOrder

This workflow takes the Order Id as input, copies the order, and changes the status of the copied order and of all its line items to As Submitted. Figure 70 shows this workflow.

This workflow is called from the SWIOrderUpsert workflow. This workflow is called only if the Backup Order flag is set to TRUE in parent workflow. SWIOrderUpsert is exposed as a Web service.

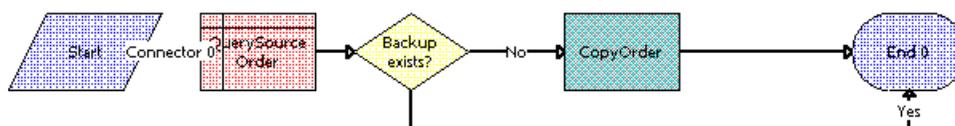


Figure 70. SWICopyOrder Workflow

**Workflow Description.** This workflow:

- 1 Queries the source order details, then gets the Copied Order Id field.
- 2 Checks whether or not the order is already copied.
- 3 Calls the CMU External Utilities Service CopyOrder method.Takes DataMap and Order Id as input and creates a backup copy of the order.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called
CopyOrder	CMU External Utilities Service CopyOrder

## Verify Header (Order)

This workflow is used to verify an order, verify a promotion, and verify the line items of an order. It displays promotion violations, data validation rule violations, and complex product violations.

Figure 71 shows this workflow.

The workflow is called when a user clicks the Verify button on the Order Header applet of the Sales Order screen.

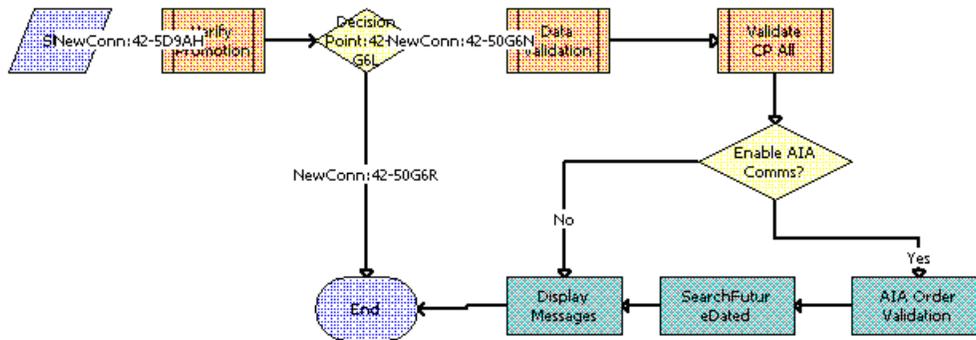


Figure 71. Verify Header (Order) Workflow

**Workflow Description.** This workflow:

- 1 Calls the ISS Promotion Verify Sub Process workflow to verify the promotion status.
- 2 Calls the SS Validation (Order) workflow to verify the data validation rules.
- 3 Calls the VORD Validate Complex Product All (Order) workflow to validate all complex products included in the order.
- 4 Checks whether the Enable AIA Comms system preference is set to True or False.
- 5 Calls the new order validation rule set, SWI Order Validation Rule Set, which verifies the order before it is submitted.

- 6 Searches for the dependent future-dated orders based on the search specification present at the Order Entry - Line Items business component, SWIFutureDatedOrdersSearchSpec user property.
- 7 Displays all messages generated by the earlier steps.

## Verify Item (Order)

This workflow is used to verify a line item and to verify a promotion. This workflow displays promotion violations, data validation rule violations, and complex product violations. Figure 72 shows this workflow.

This workflow is triggered when a user clicks Menu and chooses Verify on the Sales Order screen, Order Line List Applet menu.



Figure 72. Verify Item (Order) Workflow

**Workflow Description.** This workflow:

- 1 Calls the Business Service Context Service method GetRowSetData to get the row set data for the input variable map passed.
- 2 Calls Business Service Verify Management Service method ConvertRowSetToInput. Converts the input row set to parameters.
- 3 Calls the VORD Validate Complex Product (Order) subworkflow for validating the complex products.
- 4 Searches for the dependent future-dated orders based on the search specification present in the Order Entry - Line Items business component, SWIFutureDatedOrdersSearchSpec user property.
- 5 Calls Business Service Verify Management Service method DisplayMessages to display the messages in the UMF applet.

## SWIValidateDependentOrders

This workflow is called for validating the existence of dependent follow on orders. This workflow is called when user clicks on Modify from Order Entry Line Items list applet. Figure 73 shows this workflow.

The workflow queries based on the field Depends On Id. If there exists any record for the query a error message will be thrown. To disable this option user can set the Business Component Order Entry - Line Items user property SWIValidateDependentFlag to FALSE.

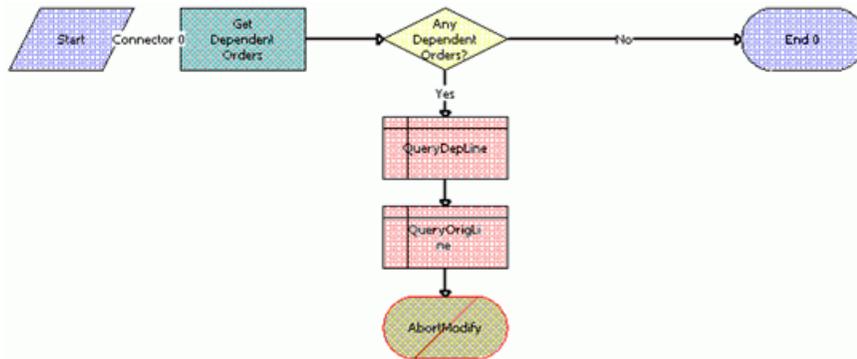


Figure 73. SWIValidateDependentOrders Workflow

**Workflow Description.** This workflow:

- 1 Checks whether or not dependent follow-orders exist.
- 2 Decides whether or not to generate an error based on the existence of dependent follow-on orders.
- 3 Queries for dependent line details that are required for display in the error message.
- 4 Queries for source line details that are required for display in the error message.
- 5 Generates an error to display a message about the existence of dependent orders.

## SWIOrderUpsert Workflow

This workflow performs the following tasks:

- Makes a backup copy of an order.
- Updates the order details.
- Cascades down update.
- Triggers an auto asset.

Oracle Application Integration Architecture uses this workflow to update the order details through the SWIOrderUpsert inbound Web service. It is called when an order update arrives from Oracle Application Integration Architecture. This workflow is exposed as an inbound Web service and is used by the Siebel application to update or insert an order. This workflow decides on the basis of the system preference whether it calls the Order To Cash Process Integration Pack Order Upsert workflow or follows the communications workflow.

The UTCCanonical flag is Y by default. This setting requires that updates from the Siebel application must be in UTC Canonical format. To turn this default behavior off, you must change the default value for the UTCCanonical process property in the SWIOrderUpsert workflow to N. Because the process property is an Input process property, you can set the value of the UTCCanonical flag to Y or N from the Siebel application.

Figure 74 illustrates the SWIOrderUpsert workflow.

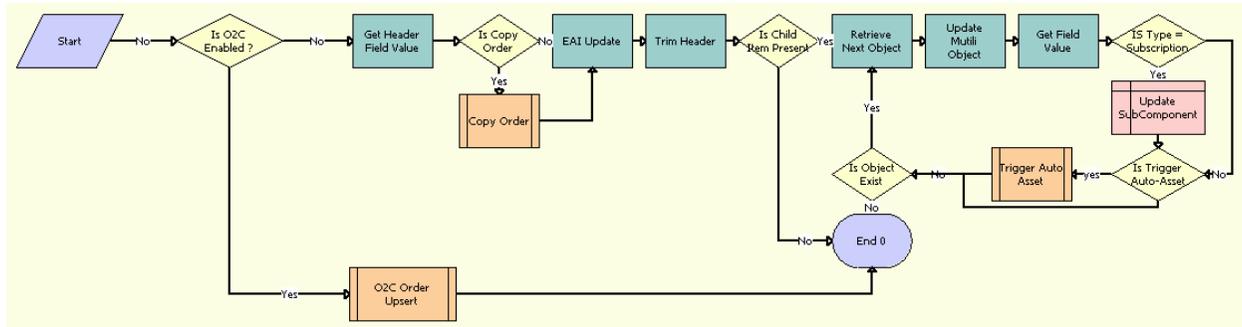


Figure 74. SWIOrderUpsert

**Workflow Description.** This workflow performs the following actions:

- 1 **Is O2C Enabled?** Checks for the Enable AIA OrderToCash system preference and calls the O2C Order Upsert Workflow if the Is O2C Enabled property is set to True.
- 2 **O2C Order Upsert.** Calls the SWI Order Upsert\_O2C subprocess.
- 3 **Get Header Field Value.** Gets the Order Id value. Takes SiebelMessage, Fieldnames, HierarchyNode, and MaxField as input.
- 4 **Is Copy Order.** Checks the status of the Backup Order Flag.
- 5 **Copy Order.** If the Backup Order Flag is set to True, this subprocess calls the SWICopyOrder workflow to make a backup of the order details. For details, see [“SWICopyOrder” on page 192](#).
- 6 **EAI Update.** Uses an input flag named UTCCanonical. This flag is Y by default. If this flag is Y, then data from the Siebel application must be in UTC (Coordinated Universal Time) and canonical format. The data in UTC and canonical format is converted to Siebel object manager format as determined by the value of the UTCCanonical flag.
- 7 **Trim Header.** Uses the CMU External Integration Service business service to trim the order header and send only the details of the order line items as a Siebel message.
- 8 **Is Child Item Present.** Checks whether the Item Present flag process property is set to True or False.
- 9 **Retrieve Next Object.** If the Item Present flag is set to True, then calls the Retrieve Next object From List method multiple times with the same input argument. Each time it calls this method, the workflow returns the next root component. Also, the workflow uses it in conjunction with Update Multi Object List to form a loop control.

- 10 Update Multi Object.** Returns the resulting integration object and cycles through each object one by one, in combination with [Step 9](#).
- 11 Get Field Value.** Takes Fieldnames, HierarchyNode, SiebelMessage, and MaxFields as input, and gives Fieldvalues as output.
- 12 Is Type = Subscription.** Checks whether Billing Type is Subscription, and whether the Cascade Down flag is set to True or False.
- 13 Update SubComponent.** If the Cascade down Flag is set to True and Billing Type is Subscription, updates the Status, Milestone, Completed Date, Change cost, Status Context, and ExpectedDeliveryDate of the child items with the Status of the parent line item, which includes the Billing Type of Subscription.
- 14 Is Trigger Auto-Asset.** Checks whether Status is Complete, the Auto-Asset flag is set to True, the Line Item Id is Root Line Item Id, or the Billing type is Subscription.
- 15 Trigger Auto Asset.** Calls the SIS OM Apply Completed Service Order Line Item to Service Profile workflow. This workflow triggers an auto asset process for each line item.  
  
For more information about the SIS OM Apply Completed Service Order Line Item to Service Profile workflow, see the chapter on workflows for employee asset-based ordering in *Siebel Order Management Guide*.
- 16 Is Object Exist.** Checks whether the Remaining Objects process property is set to True or False. If line items exist, then the workflow loops through each line item.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Get Header Field Value	GetFieldValue	CMU External Integration Service
EAI Update	Upsert	EAI Siebel Adapter
Trim Header	TrimHeader	CMU External Integration Service
Retrieve Next Object	Retrieve Next Object From List	SIS OM PMT Service
Update Multi Object	Update Multi Object List	SIS OM PMT Service
Get Field Value	GetFieldValue	CMU External Integration Service

## SWI TSQ Order Workflow

During order capture, certain services require a technical service qualification (TSQ) before those services can be offered to a customer. This workflow submits an order for a TSQ. It sets the Fulfillment status of the order to TSQ. Because only orders that do not have a status of Open can be submitted for TSQ, this prevents the open orders from being submitted for TSQ again.

This workflow is called when a user clicks the TSQ button on the Order Entry Sales screen or the Sales Order-Catalog Screen.

Figure 75 illustrates this workflow.

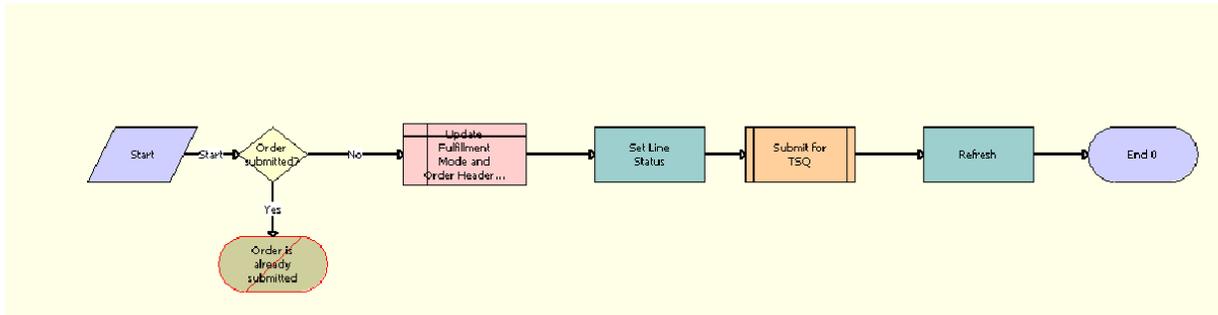


Figure 75. SWI TSQ Order Workflow

**Workflow Description.** This workflow performs the following actions:

- 1 **Order Submitted?** Checks that the order status is not Open.
- 2 **Order is already submitted.** If the order has a status of Open, it cannot be submitted for TSQ, because it has already been submitted.
- 3 **Update Fulfillment Mode and Order Header.** For the Order header, sets the Fulfillment Mode to TSQ and Fulfillment Status Code to Pending TSQ.
- 4 **Set Line Status.** Sets the Status of each line item to Pending TSQ only if the Status is empty.
- 5 **Submit for TSQ.** Calls the Submit Order Workflow, SISOMBillingSubmitOrderWebService, as a subprocess.
- 6 **Refresh.** Refreshes the screen to display the modified values.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Set Line Status	SetLIAccounts	CUT eSales Order Entry Toolkit Service
Refresh	Refresh Business Component	SIS OM PMT Service

## Workflows to Cancel an Order

This group of workflows performs order cancellations. It consists of the following workflow processes:

- [“SWICancel Sales Order” on page 199](#)
- [“SWI Cancel Sales Order Line Item” on page 200](#)

■ “SWI Cancel Sales Order\_O2C Workflow” on page 200

## SWICancel Sales Order

This workflow cancels an entire sales order and submits the order. It also displays an error or warning message pertaining to future-dated orders that are dependent on the System Preference value Cancel Error Mode. The values can be 1, 2 or 3 (Default). The user should enter the reason to cancel the order in the new Cancel Reason field on the Sales Order screen. [Figure 76](#) shows this workflow.

A user initiates this workflow by clicking the Cancel Order button in the Sales Order screen, Line Items view.

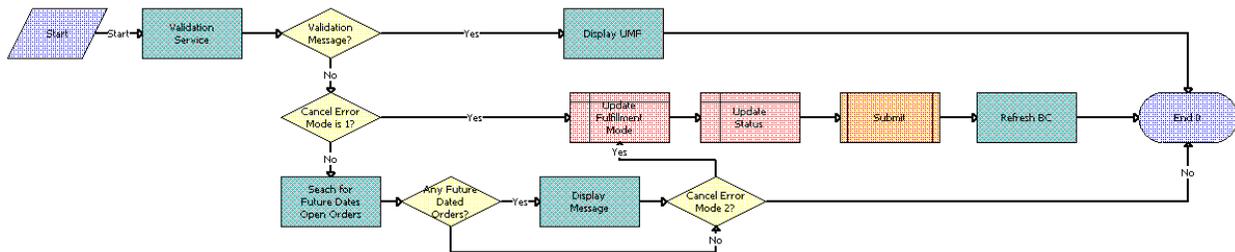


Figure 76. SWICancel Sales Order Workflow

**Workflow Description.** This workflow:

- 1 Returns a soft validation message.
- 2 Checks whether a return validation message exists.
- 3 Checks the value of the Cancel Error Mode system preference.
- 4 Updates the fulfillment mode. If Cancel Error Mode is 1, updates the fulfillment mode to Cancel.
- 5 Updates the Status. If Cancel Error Mode is 1, updates the status to Cancel Pending.
- 6 Calls the Submit Order workflow, *SISOMBillingSubmitOrderWebService*, as a subprocess. For more information, see *Siebel CRM Web Services Reference*.
- 7 Searches for future-dated open orders. If the Cancel Error Mode is not 1, checks whether future-dated orders for the current order exist.
- 8 Checks whether any future-dated orders exist.
- 9 Displays future-dated orders.
- 10 Checks the value of the Cancel Error Mode system preference. If the value is not 2, proceeds to the End step.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Validation Service	Validate	FINS Validator
Display Message	DisplayMessages	Verify Management Service
Search for Future Dates Open Orders	FormMsgForCancellation	CMU External Integration Service

## SWI Cancel Sales Order Line Item

This workflow cancels and deletes a sales order line item. This workflow is only applicable to revised orders. This workflow also displays an error or warning message pertaining to future-dated orders that are dependent on the System Preference value Cancel Error Mode. The values can be 1, 2 or 3 (Default). [Figure 77](#) shows this workflow.

A user initiates this workflow by clicking the Delete button on the Sales Order screen, Line Items view.



Figure 77. SWI Cancel Sales Order Line Item Workflow

**Workflow Description.** This workflow:

- Checks whether future-dated orders exist for the current order.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Search future dated orders for line	FormMsgForCancellation	CMU External Integration Service

## SWI Cancel Sales Order\_O2C Workflow

This workflow cancels orders that are related to Order To Cash Process Integration Pack. It is called by the parent Workflow SWICancel Sales Order when the system preference Enable Order to Cash is set to TRUE.

Figure 78 illustrates the SWI Cancel Sales Order\_O2C workflow.

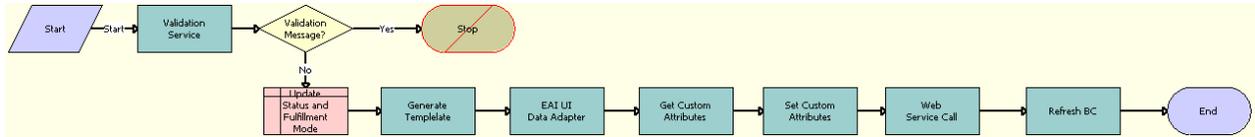


Figure 78. SWI Cancel Sales Order\_O2C

**Workflow Description.** This workflow performs the following actions:

- 1 **Validation Service.** Runs validation on the input values.
- 2 **Validation Message?** Checks whether a validation message exists in order to determine if the input is absent or invalid.
- 3 **Stop.** Workflow execution is stopped if the order cannot be canceled.
- 4 **Update Status and Fulfillment Mode.** Updates the status and Fulfillment mode.
- 5 **Generate Template.** Generates a template to query order details using only the required fields to make an Outbound Service Call.
- 6 **EAI UI Data Adapter.** Fills the template generated in the previous step with the order information that will be used to make an Outbound Service Call.
- 7 **Get Custom Attributes.** Gets the details of the Siebel Enterprise Server, language, and local values for the Siebel Server.
- 8 **Set Custom Attributes.** Sets the details of the Siebel Enterprise Server, language and Local values in the request message to make an Outbound Service Call.
- 9 **Web Service Call.** Calls the outbound Web service.
- 10 **Refresh BC.** Refreshes the values of the business component.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Validation Service	Validate	FINS Validator method
Generate Template	GetTemplate	Generate Template Service
EAI UI Data Adapter	QueryPage	EAI UI Data Adapter
Get Custom Attributes	GetEnterpriseParameters	SWI External Integration Service
Set Custom Attributes	SetAttributesToMessage	SWI External Integration Service
Web Service Call	Process	SWISubmitOrder_o2c
Refresh BC	Refresh Business Component	SIS OM PMT Service

## Workflows to Process a Quote

This group of workflows performs various internal quote processing operations. It consists of the following workflow processes:

- “Submit Quote ASI Workflow” on page 202
- “SWIQuoteUpsert Workflow” on page 203
- “SWISendQuote Workflow” on page 203

### Submit Quote ASI Workflow

This workflow is used to submit a quote. It checks for the value of the system preference Enable AIA OrderToCash. If the value is set to True, it calls the SWISendQuote Workflow. It is called when the user clicks the Submit button in the Quotes screen.

Figure 79 illustrates this workflow.

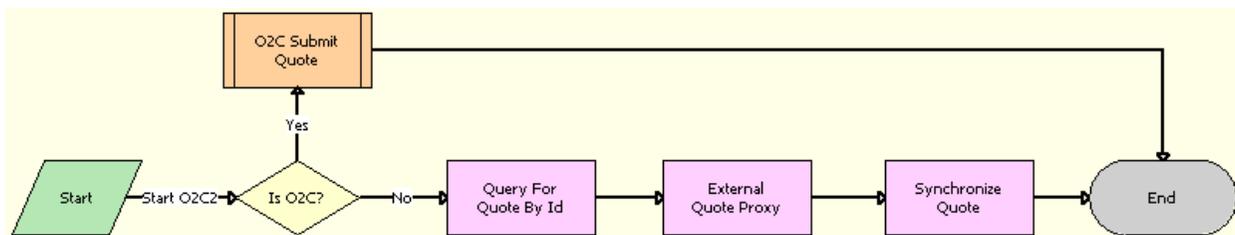


Figure 79. Submit Quote ASI

**Workflow Description.** This workflow performs the following actions:

- 1 **Is O2C.** Checks for the value of the Enable AIA OrderToCash system preference.
- 2 **O2C Submit.** Calls the SWISendQuote subprocess.
- 3 **QueryById.** Obtains the details of the quote.
- 4 **External Quote Proxy.** Calls the External Quote business service.
- 5 **Synchronize Quote.** Synchronizes the quote.

**Associated Business Service Methods.** The following table describes the steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
QueryById	QueryById	Siebel Quote
External Quote Proxy	Insert	External Quote
Synchronize Quote	Synchronize	Siebel Quote

## SWIQuoteUpsert Workflow

This workflow updates the quote details to the Siebel Business Application. It is called by the external application to update the quote status when the quote status has been changed.

Figure 80 illustrates this workflow.



Figure 80. SWIQuoteUpsert

**Workflow Description.** This workflow performs the following action:

- **Call Upsert.** Inserts or updates the quote status and other details that are obtained from the payload.

**Associated Business Service Method.** The following table describes the step in this workflow that calls a business service method.

Workflow Step	Method Called	In Business Service
Call Upsert	InsertOrUpdate	SWI Quote Upsert

## SWISendQuote Workflow

This workflow is specific to the Order To Cash Process Integration Pack and submits a quote into AQ. It is called by the parent workflow Submit Quote ASI when the system preference Enable Order to Cash is set to TRUE.

Figure 81 illustrates the SWISendQuote workflow.

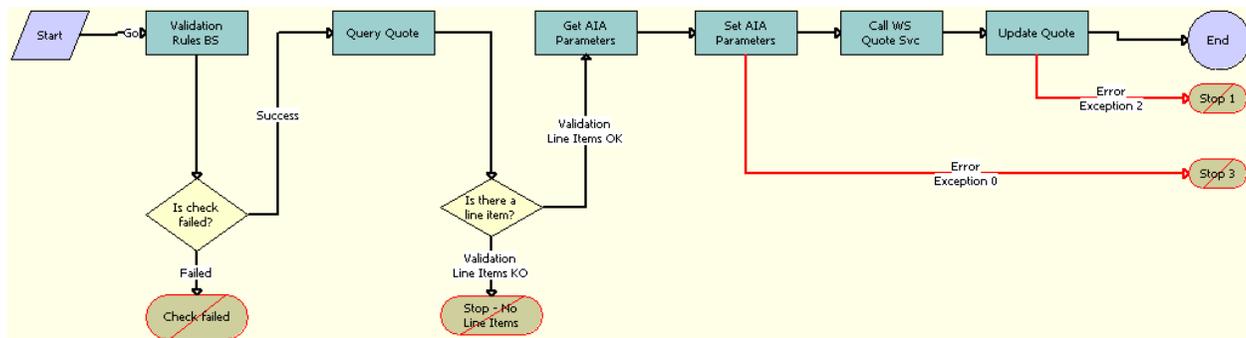


Figure 81. SWISendQuote

**Workflow Description.** This workflow performs the following actions:

- 1 **Validate Rules BS.** Validates the input values.
- 2 **Is Check Failed?** Determines if a validation violation occurred.
- 3 **Check failed.** Workflow execution is stopped if any validation violation has occurred.
- 4 **Query Quote.** Queries for the Quote Id that is submitted.
- 5 **Is there a line item?** Checks if there are any line items for the quote.
- 6 **Stop - No Line Items.** Workflow execution is stopped if no line item is found.
- 7 **Get AIA Parameters.** Gets the Siebel Enterprise Server details and other parameters.
- 8 **Set AIA Parameters.** Formats the parameters into a Siebel message format.
- 9 **Call WS Quote Svc.** Calls the Web service that converts the message into AQ.
- 10 **Update Quote.** Updates the quote status and other details that are obtained from the external application.
- 11 **Stop 1.** Workflow execution is stopped, and the following error message is displayed: The call to the external system executed, but the response was not as expected. If logging is enabled, the response can be examined to assist in diagnosing the problem.
- 12 **Stop 3.** Workflow execution is stopped, and the following error message is displayed: A configuration error occurred while preparing the message to submit to the external system. Have your system administrator check the Workflow for the step that sets the external application attributes.

**Associated Business Service Methods.** The following table describes the workflow steps in this workflow that call a business service method.

Workflow Step	Method Called	In Business Service
Validate	Validate	FINS Validator
Query Quote	QueryById	SWI Quote Upsert
Get AIA Parameters	GetEnterpriseParameters	SWI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS Quote Svc	process	SWISubmitQuote_o2c
Update Quote	InsertOrUpdate	SWI Quote Upsert

# 5

## Partner Asset-Based Ordering

This chapter describes asset-based ordering in the Siebel Partner Relationship Management (PRM) applications and includes information about the tasks a partner user completes for quote and order management. This chapter includes the following topics:

- [“About Order Management in Siebel Partner Relationship Management” on page 205](#)
- [“Scenario for Partner Asset-Based Ordering” on page 205](#)
- [“Order Management with Standard Partner Commerce” on page 207](#)
- [“Order Management with Power Partner Commerce” on page 218](#)

### About Order Management in Siebel Partner Relationship Management

Siebel PRM allows your partners to resell and purchase the products of your organization and allows your partners to communicate and collaborate with your organization. For more information about Siebel PRM, see *Siebel Partner Relationship Management Administration Guide*.

PRM order management processing provides support for the following types of partner users in the PRM module:

- **Standard Partner Commerce User.** This partner user employs the Shopping Cart view to purchase products and services for the partner organization or their customers. This order capture interface is similar to the interface in the Siebel eSales application, is designed for ease of use, and is most appropriate for business to consumer transactions. The Standard Partner Commerce user has access to the product catalog and Advisor. For more information about Standard Partner Commerce, see [“Order Management with Standard Partner Commerce” on page 207](#).
- **Power Partner Commerce User.** This partner user employs the same quote and order modules that employees use. This user supports the partner user who assists customers with specialized needs. For more information about Power Partner Commerce, see [“Order Management with Power Partner Commerce” on page 218](#).

### Scenario for Partner Asset-Based Ordering

This scenario provides an example of how a partner organization can establish a partnership with a brand owner organization and complete sales channel. You and your partners might follow a different process according to the business requirements of your organization and your partnership program.

## **Brand Owner Recruits Partners**

The channel manager for TeleMedia Inc. Wireless developed a partnership campaign to use channel partners to resell TeleMedia mobile phone packages.

Prospective partners receive a campaign email message that directs them to the TeleMedia Partner Portal. On the portal, partners can view information about available TeleMedia partner programs and apply to become partners.

The TeleMedia channel manager reviews and approves these applications. After the manager approves an application, the partner organization has full access to the Partner Portal. TeleMedia assigns accounts and responsibilities to the organization and assigns the appropriate user type (power user or standard user) to employees of the organization.

## **Partners Order Through the Partner Portal**

After TeleMedia partner approval, the electronics department manager for ComTel Networks can expand his store selections by offering TeleMedia products. The partner store manager logs in to the TeleMedia Partner Portal. The Home Page displays a partner alert about a promotional campaign for the TeleMedia mobile package. This package includes partner resell incentives.

He decides to upgrade the existing store inventory of mobile phones and promote the mobile package through the newer mobile models along with clearance of older mobile models.

The partner store manager browses the TeleMedia product catalog and decides to use Advisor to find the best deals that TeleMedia offers partners. After Advisor directs the store manager to a mobile package promotion, he adds the suggested products to the shopping cart and completes the ordering process.

## **Partners Create and Modify Customer Orders**

The mobile package promotion allows ComTel Networks to sell a substantial number of TeleMedia products.

One of the mobile packages that TeleMedia offers is a family package that provides primary phone service with 1500 plan minutes and the option to add multiple mobile phones managed under one service account. Each additional mobile phone receives individual service options at discount rates and shares the primary service minutes.

A ComTel Networks customer purchases a family 1500 plan for his wife, his daughter, and himself. The next morning, this customer calls and wants to add two new mobile products with service options to his account.

A partner employee who is a Power Commerce user handles this call. The employee finds the customer account showing all the products and services that the customer requested.

The employee orders two more phone products with the service options that the customer requests. In the orders list, the employee selects the open order. The Sales Order form and Line Items List appear. The employee revises the order to add the two additional phone products with the service options.

The product Configurator appears showing all of the installed products for the customer and the expected state of the customer service profile after the open order is provisioned. The employee customizes the phone packages and submits the order.

The employee essentially creates a supplemental order, which is an order that revises an existing open order. When you submit the revised order, an entirely new order (and not the difference between the revised order and the previous order) is submitted. For more details, see the topic about revising a submitted order in *Siebel Order Management Guide*.

Several weeks later, after the service is provisioned, this customer wants to change the service options for one family member in the plan. A partner employee uses the TeleMedia Partner Portal to look up the customer account and sees the three mobile phones and service plan options in this customer account. The employee uses Configurator to change the service options for one phone, and then submits the order. This employee modifies an order that was already fulfilled. For more details, [“Revising an Order \(Standard Partner Commerce\)” on page 216](#).

**NOTE:** This ordering process is different if the employee is a Standard Partner Commerce user. The employee works with eCatalog and the shopping cart. For more information, see [“Order Management with Standard Partner Commerce” on page 207](#).

## Order Management with Standard Partner Commerce

This topic provides information about how Standard Commerce users create quotes and orders. The Standard Commerce user works with an interface similar to the Siebel eSales user interface. This interface includes eCatalog, the shopping cart, Advisor, and other simplified quote to order features.

This topic covers the following tasks for quote and order management:

- Quote management tasks for Standard Partner Commerce:
  - [“Adding Items to a Shopping Cart \(Standard Partner Commerce\)” on page 208](#)
  - [“Customizing an Item \(Standard Partner Commerce\)” on page 209](#)
  - [“Revising Shopping Cart Contents \(Standard Partner Commerce\)” on page 210](#)
  - [“Adding Bulk Items to the Shopping Cart \(Standard Partner Commerce\)” on page 211](#)
  - [“Saving a Shopping Cart as a Quote or Quote Template \(Standard Partner Commerce\)” on page 211](#)
- Order placement tasks for Standard Partner Commerce:
  - [“Converting a Quote to an Order \(Standard Partner Commerce\)” on page 212](#)
  - [“Processing an Order Checkout \(Standard Partner Commerce\)” on page 213](#)
  - [“Adding Quote Template Items to the Shopping Cart \(Standard Partner Commerce\)” on page 213](#)
  - [“Entering Shipping Information \(Standard Partner Commerce\)” on page 214](#)
  - [“Using the Credit Card Payment Method \(Standard Partner Commerce\)” on page 214](#)
  - [“Using the Bill Me Payment Method \(Standard Partner Commerce\)” on page 215](#)

- ["Using the Billing Account Payment Method \(Standard Partner Commerce\)" on page 215](#)
- ["Using the Purchase Order Method \(Standard Partner Commerce\)" on page 215](#)
- ["Reviewing and Submitting an Order \(Standard Partner Commerce\)" on page 215](#)
- Order change tasks for Standard Partner Commerce:
  - ["Revising an Order \(Standard Partner Commerce\)" on page 216](#)
  - ["Selecting Billing and Service Accounts \(Standard Partner Commerce\)" on page 216](#)
  - ["Modifying an Order \(Standard Partner Commerce\)" on page 217](#)
  - ["Disconnecting an Order \(Standard Partner Commerce\)" on page 217](#)

## Adding Items to a Shopping Cart (Standard Partner Commerce)

Standard Partner users can add items to the shopping cart in the following ways:

- By selecting items from a catalog.
- By selecting items saved to Favorites.
- By selecting an item from Recommended items.
- By using Quick Add to specify an item.
- By retrieving a stored quote.
- By retrieving a quote template.

When the user adds an item from a catalog to the shopping cart, the user remains in the catalog view, and the item appears in the Last Item Added area.

If the shopping cart contains items when the user exits the session, these items remain in the shopping cart when the user next logs in. Users do not have to log in before adding items to the shopping cart. However, users must log in to convert the shopping cart contents to an order and to save the shopping cart as a quote or quote template.

The types of shopping cart pricing include:

- **Non-recurring charge (NRC)**. This price is charged only once. Examples include items such as hardware and one-time installation charges.
- **Monthly recurring charge (MRC)**. This price is charged on a subscription basis, such as once a week or once a month. The unit of measurement (UoM) field specifies the time period. Examples include monthly telephone line service charges.

Each price type has a separate total.

### *To add items to a shopping cart from a catalog*

- 1 Log in to the Partner Portal and navigate to the Product Catalog screen.

- In the Browse list, click the catalog that you want.

The catalog screen displays all the items in the catalog.

- Click the name of a catalog item.

A view appears showing item information. You can also perform the following tasks:

- Enter an item quantity.
- For customizable products, click Customize to select components and attributes.

- In the Catalog Items list, enter the quantity in the Qty field of the item that you want.

- Click the Add Item button next to the item name.

The item is added to the shopping cart. The Last Item Added display shows the item name, the number of line items in the shopping cart, and the total price of all items in the shopping cart.

- In the real-time shopping cart, click View Details.

The Shopping Cart form displays the item that you select, and a Recommended Items form appears listing other items that you might need.

- Verify that the items you select appear correctly.

The following table describes some of the shopping cart fields.

Field	Description
Line #	The application assigns a number to each line item. If an item has components, a file folder appears in this field. Click the file folder to see the components for the item.
Item	Item name. Click this field to see additional product information, such as product literature and related products.
Qty	Quantity of the item. Click this field to revise the quantity.
MRC Subtotal	Subtotal of monthly recurring charges for the item.
NRC Subtotal	Subtotal of non-recurring charges for the item.
Options	Product attributes.
Action	Action code.
Unit	Unit of measurement (for each month, year, and quarter).
Comments	Comments from the Pricer.

## Customizing an Item (Standard Partner Commerce)

Standard Partner Commerce users customize items by selecting item components and attributes in a configuration session. To start a configuration session, the user clicks Customize. When the user exits the configuration session, the configuration is transferred to the shopping cart.

**NOTE:** Users can customize only customizable or complex products.

If the quantity of a configurable item is greater than one, the configuration is applied to each of the configurable items. For example, a user adds a configurable residential phone service package to the shopping cart, specifies 4 in the Qty field, and clicks Customize. When the user exits the configuration session, the configuration is applied to all 4 of the residential phone service packages.

You must have a Configurator license to configure customizable products.

### ***To customize an item***

- 1** In the Catalog screen, in the Items list, click Customize.  
Selection pages appear showing customizable components and attributes.
- 2** In each category, select the component and enter a quantity (if applicable).  
If a component has customizable attributes, an icon appears in the Customize column.
- 3** Click the icon to configure the attributes for the component.  
If you select quantities or combinations of components that are incompatible, a configuration message appears showing alternative selections.
- 4** After you configure the item, click Save.
- 5** When you finish, click Done.  
The shopping cart appears.

## **Revising Shopping Cart Contents (Standard Partner Commerce)**

Standard Partner Commerce users can remove single items from the shopping cart or remove all items at the same time. Users can also change the quantity of items. In addition, users can reconfigure items and add new items.

### ***To revise the contents of the shopping cart***

- 1** Navigate to the shopping cart.
- 2** Perform one or more of the following actions, as appropriate:
  - To delete an item, click the active record indicator for the item (the diamond icon in the left column), and then click the trash can button.
  - To delete all the items, click Empty Cart.
  - To change the quantity of an item, enter a new quantity in the Qty field and click the Update Quantity button.
  - To use Quick Add to add an item, enter the Item Name, Item Code, or Manufacturer Code and click Add to Cart.

- To add an item from the Recommended Items form, click the item name. When the view showing item information appears, click Add To Cart. In the real-time shopping cart, click View Cart to return to shopping cart.

## Adding Bulk Items to the Shopping Cart (Standard Partner Commerce)

Business users frequently order customizable items in bulk. For example, a business user might order 20 customizable phone lines for installation at the same location. Rather than configure each phone line separately, the user can configure one phone line and apply that configuration to all the phone lines. The user can then adjust as needed the configuration of individual phone lines.

This procedure uses the workflow described in [“Workflow That Ungroups Quotes” on page 240](#).

### *To add bulk items to the shopping cart*

- 1 Add a customizable item to the shopping cart.
- 2 Navigate to the shopping cart and click the active record indicator for the item (the diamond button in the left column).
- 3 In the Qty field for the item, enter the quantity.
- 4 Click Update Quantity.
- 5 If necessary, click the active record indicator to select the item again.
- 6 Click Customize.  
Selection pages display the customizable components and attributes of the item.
- 7 Select components and attributes, and then click Done.  
The shopping cart appears.
- 8 Verify that the active record indicator for the item is highlighted, and then click Ungroup.
- 9 To adjust the configuration of an ungrouped instance of the item, click the active record indicator for the item, and then click Customize.

## Saving a Shopping Cart as a Quote or Quote Template (Standard Partner Commerce)

When the user saves the shopping cart, the application prompts the user to log in if the user is not logged in. If the user is not a registered user, the application prompts the user to register.

When the user saves the shopping cart as a quote, the quote is added to My Quotes. The user can later convert the quote to an order. When the user converts a quote to an order from My Quotes, the quote is removed from My Quotes.

When the user saves a quote as a template, the quote is added to My Templates. The user can later use the template to create orders. When the user uses a template from My Templates, the template is not removed from My Templates.

### *To save a shopping cart as a quote or quote template*

- 1 Navigate to the shopping cart.
- 2 Click Save Cart.  
The Save Cart form appears.
- 3 In the Name field, enter a descriptive name.
- 4 To save the shopping cart as a quote, click Save as Quote.  
My Quotes appears listing the quote. The shopping cart is empty.
- 5 To save the shopping cart as a quote template, click Save as Template.  
The shopping cart appears. The shopping cart contents are unchanged.

## Converting a Quote to an Order (Standard Partner Commerce)

The user converts a quote to an order by transferring a quote from My Quotes to the shopping cart. This transfer removes the quote from My Quotes.

If the quote is not expired, the items in the quote are transferred to the shopping cart and the checkout process starts. If the quote is expired, the application verifies the shopping cart contents:

- If the shopping cart is not empty, the application presents the shopping cart contents to the user. The user can cancel the process, save the shopping cart, or discard the shopping cart.
- If the shopping cart is empty, discarded, or saved, the application transfers the quote to the shopping cart. The application recalculates prices and removes items that are no longer available from the quote.

### *To convert a quote to an order*

- 1 In the Partner Portal, click Quotes.
- 2 In the Quotes screen, click My Quotes or My Customer Quotes to retrieve the appropriate quote.
- 3 In the My Quotes or My Customer Quotes list, select the quote.
- 4 In the Quote view, verify that the quote contains all the needed items and that customizable items are configured correctly.
- 5 Click Order.

If the quote contains items to be shipped, the Shipping Information view appears for you to select the shipping address. If you did not set up a payment method, the Payment Method view appears.

## Processing an Order Checkout (Standard Partner Commerce)

When the user converts the shopping cart to an order, the application does the following:

- Verifies that the user is logged in. If the user is not logged in, the user must register and log in.
- Verifies that a complete shipping address is available. If no shipping address is available, the user must enter or select a shipping address.
- Verifies that a payment method is selected. If no payment method is selected, the user must select a payment method.
- Computes taxes and shipping costs.
- Presents an order summary. The user can edit the shipping and payment details in the order summary before submitting the order. For example, the user can assign service IDs to items.

This procedure uses the workflows described in [“Workflows That Process an Order Checkout” on page 228](#).

You convert the shopping cart to an order when you check out the order.

### *To check out an order*

- 1 Navigate to the shopping cart.
- 2 Verify that the shopping cart contains all the items that you want to purchase. Also verify that customizable items are configured correctly.
- 3 Click Check Out.  
If the shopping cart contains items to be shipped, the Shipping Information view appears for you to select the shipping address. If you did not set up a payment method, the Payment Method view appears.
- 4 In the Payment Method form, either enter a credit card and click Continue, or click Bill Me.
- 5 If you select the Bill Me option, enter a billing address.

## Adding Quote Template Items to the Shopping Cart (Standard Partner Commerce)

The user can add items in a quote template to the shopping cart. The user can add quote items to an empty shopping cart to a shopping cart that contains items.

### *To add quote template items to the shopping cart*

- 1 Log in to Partner Portal and click Quotes.
- 2 In the Quotes list, click My Templates.
- 3 In the Template list, locate the quote template and click the Name field.

4 In Template Items, if necessary, delete items from the quote template and change item quantities.

5 In Template, click Order Template.

The shopping cart appears containing the items from the quote template. The application corrects prices for these items.

6 Click Check Out.

If the shopping cart contains items to be shipped, the Shipping Information view appears for you to select the shipping address. If you did not set up a payment method, the Payment Method view appears.

## Entering Shipping Information (Standard Partner Commerce)

If an order contains items to be shipped, the application verifies that a complete shipping address is available. If no shipping address is available, the user must enter shipping information.

### *To enter shipping information*

1 In Shipping Information, click Edit Shipping Details.

2 Select the recipient and shipping method, and then click Save.

3 Click the edit button for a record to edit the address.

4 In the Select Shipping Address form, edit the address and click Save.

5 To create a new shipping address, click Add, fill out the address form, and click Save.

6 In the Select Shipping Address form, click Save.

The Payment Method view appears.

## Using the Credit Card Payment Method (Standard Partner Commerce)

Users who elect to pay with a credit card use the Credit Card payment method.

### *To use the Credit Card payment method*

1 In the Payment Method form, enter credit card information.

2 Enter the billing address.

3 To erase the form and start again, click Reset.

4 After entering all the information, click Continue.

The Order Summary appears.

## Using the Bill Me Payment Method (Standard Partner Commerce)

Users who elect to be billed later use the Bill Me payment method.

### *To use the Bill Me payment method*

- 1 In the Payment Method tab, click Bill Me.  
The Billing Information view appears.
- 2 In Select Billing Address, locate the billing address.
- 3 In the address Select field, click Select.  
The Order Summary appears showing the billing address.

## Using the Billing Account Payment Method (Standard Partner Commerce)

Users who elect to have their account billed use the Billing Account payment method.

### *To use the Billing Account payment method*

- 1 In the Payment Method form, click the Billing Account select button.  
The Pick Billing Account dialog box appears.
- 2 Select the billing account and click OK.  
The Order Summary appears showing the billing address.

## Using the Purchase Order Method (Standard Partner Commerce)

For information about this task, see *Siebel eSales Administration Guide* and *Siebel eSales Administration Guide Addendum for Industry Applications*.

## Reviewing and Submitting an Order (Standard Partner Commerce)

The user can review and submit an order.

### *To review and submit an order*

- 1 Log in to Partner Portal and click My Account.
- 2 In the My Information list, click My Orders.
- 3 In the My Orders list, select an order with a Pending status.
- 4 Review the shipping information, payment information, requested items, and total cost to verify that the information is correct.
- 5 Select or confirm the Shipping address.
- 6 Click Submit.

## Revising an Order (Standard Partner Commerce)

The user can change an existing order. In this task, the user creates a supplemental order by changing an order that is not yet provisioned.

This procedure uses the workflows described in [“Workflows That Revise an Order” on page 243](#).

### *To revise an order*

- 1 Log in to Partner Portal and click My Account.
- 2 In the My Information list, click My Orders.  
The My Orders list appears showing your existing orders.
- 3 Select the appropriate order and click Revise.  
The status of the order must be Open.
- 4 In the Line Items list, select the item to revise.
- 5 Click Customize.
- 6 Change the item and click Checkout.

## Selecting Billing and Service Accounts (Standard Partner Commerce)

The user can select and view an existing Billing and Service Account.

### *To select billing and service accounts*

- 1 In the My Account screen, in the Products & Services list, click Billing Items or Service Items.
- 2 When the Billing Item or Service Item screen appears, select the account.

## Modifying an Order (Standard Partner Commerce)

The user can change a service item that is already provisioned. The user can change product attributes, features, and components of the service item.

This procedure uses the workflows described in [“Workflows That Modify Products and Installed Assets” on page 245](#).

### *To modify an existing service item*

- 1 In the My Account screen, in the Products & Services list, click Service Items.  
The Service Items screen appears.
- 2 In the Select Account list, if necessary, select the account with service items to change.  
You might have to select an account for this service if you have multiple accounts.
- 3 In the Service Items list, select the item to change.
- 4 Click Modify.
- 5 When the selection pages appear, change the product attributes, features, and components, as needed.
- 6 Click Done.

When the shopping cart appears, you can see the changed action codes.

## Disconnecting an Order (Standard Partner Commerce)

The user can disconnect a complete service item and all of its components. This task disconnects the parent product and all child products on lower levels of the hierarchy. You cannot disconnect a child product without disconnecting the parent product.

**NOTE:** In Standard Partner Commerce, orders and services are the same. When you select Service Items under the Products & Services tab, you access screens to work with existing orders.

This procedure uses the workflows described in [“Workflows That Disconnect Products and Services” on page 248](#).

### *To disconnect an order*

- 1 In the My Account screen, in the Products & Services list, click Service Items.  
The Service Items screen appears.
- 2 In the Select Account list, if necessary, select the account with service items to disconnect.  
You might have to select an account for this service if you have multiple accounts.
- 3 In the Service Items list, select the item to disconnect.

4 Click Disconnect.

When the shopping cart appears, you can see the product and all of its components with delete action codes.

5 Click Check Out.

## Order Management with Power Partner Commerce

This topic provides information about how Power Commerce users create quotes and orders. The Power Commerce user works with an interface similar to the quote and order screens of employee applications, such as those in Siebel Communications and Siebel Media. This order-entry interface gives the user full access to the Quotes and Orders modules that employees use.

**NOTE:** The topic about asset-based ordering in *Siebel Order Management Guide* covers the processes and procedures that use the Quotes and Orders modules.

The Power User can help customers who need more assistance. For example, to upgrade the existing service for a customer, a Power Commerce user might need access to the customer account to compare the customer's existing entertainment service package to a new service offering.

After identifying the customer and accessing the customer account, the Power Commerce user can launch Advisor to analyze the needs of the customer and recommend product and service packages. The Power Commerce user can then create a quote and fax, email, or mail the quote to the customer.

Later, the customer might call again to add or delete items from the order or to get additional comparative information. The Power Commerce user can access the appropriate screens based on the status of the order. Whether the order is pending or complete, the Power Commerce user can generate a quote and order based on the customer's new requirements.

A Power Commerce user typically manages customer quotes and orders in the same way that an employee manages them. For more information about managing customer quotes and orders, see the topic about asset-based ordering in *Siebel Order Management Guide*.

# 6

## Workflows for Partner Asset-Based Ordering

This chapter explains the Siebel workflows that are specific to Siebel PRM order management. Many workflows are common to Siebel PRM and employee or customer management. These workflows are covered in *Siebel Order Management Guide* and in [Chapter 8, “Workflows for Customer Asset-Based Ordering.”](#)

This group of workflows, specific to Siebel PRM, directs users to the Power Partner Commerce user interface or the Standard Partner Commerce user interface. It consists of one workflow process and one subprocess.

This chapter includes the following topics:

- [“CUT eChannel - New Products & Services Process” on page 219](#)
- [“CUT eChannel - Goto Product Catalog View” on page 220](#)

For more information about the Power Partner Commerce and Standard Partner Commerce user interfaces, see [“About Order Management in Siebel Partner Relationship Management” on page 205.](#)

### CUT eChannel - New Products & Services Process

This workflow identifies the user role as either a Partner Power Commerce user or a Standard Partner Commerce user and then routes the appropriate user interface to the user. [Figure 82](#) shows this workflow.

The user initiates this workflow by logging in at the Partner Portal login screen, selecting the New button from the Installed Assets applet in the Customer Portal view, and selecting New from the Service Items view.

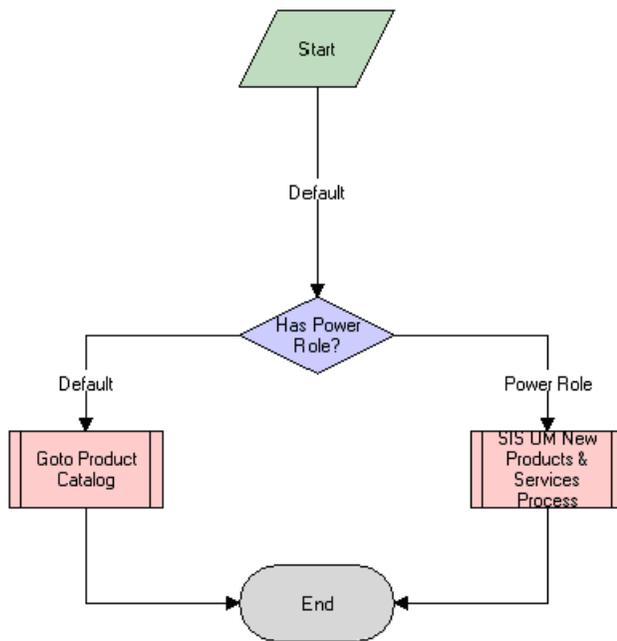


Figure 82. CUT eChannel - New Products & Services Business Process Workflow

**Workflow Description.** This workflow:

- 1 Identifies the user role.
- 2 Calls the process to display the appropriate interface for quotes and orders:
  - Calls the “[CUT eChannel - Goto Product Catalog View](#)” subprocess if the user is identified as a Standard Partner Commerce user.
  - Calls the SIS OM New Products & Services Process workflow if the user is identified as a Power Partner Commerce user.

For more information about this workflow, see the topic about workflows for employee asset-based ordering in *Siebel Order Management Guide*.

## CUT eChannel - Goto Product Catalog View

If the user is identified as a Standard Partner Commerce user, this workflow displays the product catalog for Standard Partner Commerce. The user can browse eCatalog, select products, and add products to the shopping cart. [Figure 83](#) shows this workflow.

The CUT eChannel - New Products & Services Process workflow calls this workflow as a subprocess.



Figure 83. CUT eChannel - Goto Product Catalog View Workflow

**Workflow Description.** This workflow:

If the CUT eChannel - New Products & Services Process workflow identifies the user role as Standard Partner Commerce user, displays the product catalog for Standard Partner Commerce users.



# 7

## Customer Asset-Based Ordering

This chapter provides information about customer user tasks in asset-based ordering for industry applications. Employee users perform many order management tasks, such as creating accounts, creating quotes, placing orders, and changing orders. Customer users can perform many of these same tasks on the Web. This Web user interface is suitable for customer use. This chapter includes the following topics:

- [“About Customer Asset-Based Ordering” on page 223](#)
- [“Scenarios for Customer Asset-Based Ordering” on page 224](#)
- [“Adding Bulk Items to the Shopping Cart” on page 225](#)
- [“Modifying a Service Item” on page 225](#)
- [“Disconnecting a Service Item” on page 226](#)

### About Customer Asset-Based Ordering

Using asset-based ordering, customer users can perform all the tasks employee users commonly perform using Siebel eSales, including:

- Creating new addresses for an existing account
- Adding items to a shopping cart
- Customizing an item
- Saving a shopping cart as a quote or quote template
- Processing an order checkout
- Converting a quote to an order
- Adding quote template items to the shopping cart
- Entering shipping information
- Using payment methods
- Reviewing and submitting an order
- Revising an order

For more information about the tasks users commonly perform using Siebel eSales, see *Siebel eSales Administration Guide*. In addition, customer users can perform the following tasks that are specific to asset-based ordering:

- [“Adding Bulk Items to the Shopping Cart” on page 225](#)
- [“Modifying a Service Item” on page 225](#)
- [“Disconnecting a Service Item” on page 226](#)

## Scenarios for Customer Asset-Based Ordering

These scenarios provide examples of processes that customers of a telecommunications company perform. Your customers might follow a different process according to the business requirements of your company.

### Create a Quote and Convert It to an Order

A telecom analyst for a small corporation wants to establish 10 local telephone lines for a new company office. He accesses the GCI Telecom Web site and enters a username and password to see the account information for his company. He creates a new location and enters details for the new service account for the new company office.

He launches Siebel Advisor and finds that the GCI Small Business Enabler bundle is the most cost-effective solution for his company. This bundle offers five to twenty local telephone lines with voice mail and call waiting for \$5.99 for each month for each line and one additional optional feature in the base price. The bundle base price is \$25 for each month and includes consolidated billing.

Using Configurator, the analyst customizes the GCI Small Business Enabler bundle of products. He specifies a quantity of 10 and selects caller ID as the optional feature. He sets up all 10 lines with the same features and clicks Done.

In the shopping cart, he clicks the Checkout button and creates a new sales order.

### Place a Supplemental Order

A residential customer receives an email message about a GCI marketing campaign. The message explains the advantages of the local phone service offered by GCI, and suggests that the customer consider switching from her current phone company to the GCI Oregon Local Breakthrough package. She clicks on the link in the email message to access the GCI Web site.

At the Web site, she sees that the package offered by GCI includes a local telephone line, caller ID, and call forwarding. She decides to place an order, selects the package, and configures the service.

She provides a forwarding number to forward calls to her office number after six rings. She also adds voice mail service to the base package for an additional \$6.95 for each month. She clicks Checkout, enters new account and payment information, and confirms the order.

The Siebel application sends the order request to the GCI provisioning system and sends the customer a confirmation email message summarizing the purchased service. Twenty minutes later, the customer reads the email message and decides that \$6.95 for each month is too much to pay for voice mail service, so she clicks the link in the email message to access the GCI Web site again.

At the Web site, she reviews her order. All the order line items are still open, so she can click the Revise button to create a supplemental order.

The Siebel application marks the original order as inactive and copies original order information to a new active order with a status of Pending and a revision number of 2. The customer selects the GCI Oregon Local Breakthrough package, and clicks the Customize button. In the configuration view, she deletes the voice mail feature.

She also wants to change the call forwarding number (that she provided earlier) to her cell phone number, so she selects the forwarding number attribute of the call forwarding service and changes the number. Then, she saves the new configuration for the supplemental order and submits the order. She receives an email message indicating her order confirmation.

## Adding Bulk Items to the Shopping Cart

Business customers working on the Web frequently order customizable items in bulk. For example, a business customer might order 20 customizable phone lines for installation at the same location. Rather than configure each phone line separately, the customer can configure one phone line and apply that configuration to all the phone lines. The customer can then adjust as needed the configuration of individual phone lines.

### *To add bulk items to the shopping cart*

- 1 Add a customizable product to the shopping cart.
- 2 Navigate to the shopping cart.
- 3 In the product Qty field, enter the quantity.
- 4 Click Update Quantity.
- 5 If necessary, select the product record.  
Selection pages display the customizable components and attributes of the item.
- 7 Select components and attributes, and then click Done.  
The shopping cart appears.
- 8 Verify that the product record is selected, and then click Ungroup.  
One record is created for each instance of the customizable item.
- 9 To adjust the configuration of an ungrouped instance of the item, click the item record, and then click Customize.

## Modifying a Service Item

A customer working on the Web can change a service item. The customer can change product attributes, features, and components of the service item.

**NOTE:** In Siebel eSales for Communications, Media, and Energy, orders and services are the same. When you select Service Items under the Products & Services tab, you access screens to work with existing orders.

### *To modify an existing service item*

- 1 In the My Account screen, in the Products & Services list, click Service Items.  
The Service Items screen appears.
- 2 In the Select Account list, if necessary, select the account with service items to change.  
You might have to select an account for this service if you have multiple accounts.
- 3 In the Service Items list, select the item to change.
- 4 Click Modify.
- 5 When the selection pages appear, change the product attributes, features, and components, as needed.
- 6 Click Done.  
When the shopping cart appears, you can see the changed action codes.

## Disconnecting a Service Item

A customer working on the Web can disconnect a complete service item and all of its components. This task disconnects the parent product and all child products on lower levels of the hierarchy. You cannot disconnect a child product without disconnecting the parent product.

**NOTE:** In Siebel eSales for Communications, Media, and Energy, orders and services are the same. When you select Service Items under the Products & Services tab, you access screens to work with existing orders.

### *To disconnect a service item*

- 1 In the My Account screen, in the Products & Services list, click Service Items.  
The Service Items screen appears.
- 2 In the Select Account list, if necessary, select the account with service items to disconnect.  
You might have to select an account for this service if you have multiple accounts.
- 3 In the Service Items list, select the item to disconnect.
- 4 Click Disconnect.  
When the shopping cart appears, you can see the product and all of its components with delete action codes.
- 5 Click Check Out.

# 8

## Workflows for Customer Asset-Based Ordering

This chapter describes the workflows for customer asset-based ordering.

The workflows are grouped in topics that denote automated business processes. Each topic describes at least one main workflow process and can describe one or more subprocesses that a main process calls. Subprocesses can call additional subprocesses. The workflow listings for each group show how the process and subprocesses are related to each other. In the workflow listings, subprocesses are indented and listed under their corresponding processes.

**NOTE:** If you cannot see all of the detail in some of the larger workflow diagrams in this chapter, you can view these workflows in Siebel Tools to see a clearer image.

Many of the processes and subprocesses use business service methods that are specific to Order Management. The descriptions of workflows include tables listing the names of any methods the workflows call. For information about these methods, see *Siebel Order Management Infrastructure Guide*.

This chapter includes the following topics:

- [“About Workflows for Customer Ordering” on page 227](#)
- [“Workflows That Process an Order Checkout” on page 228](#)
- [“Workflow That Ungroups Quotes” on page 240](#)
- [“Workflow That Creates an Order For a Quote” on page 242](#)
- [“Workflow That Edits a Delta Quote Line Item” on page 242](#)
- [“Workflows That Revise an Order” on page 243](#)
- [“Workflow That Rejects an Order” on page 244](#)
- [“Workflows That Modify Products and Installed Assets” on page 245](#)
- [“Workflows That Disconnect Products and Services” on page 248](#)

### About Workflows for Customer Ordering

Workflows are a central feature of Siebel Order Management. They automate the business processes for managing accounts, quotes, orders, and assets. You can modify workflows to suit your business model using Siebel Business Process Designer. For more information, see *Siebel Business Process Framework: Workflow Guide*.

Some customer workflows for Oracle's Siebel Communications, Media, and Energy can override the functions specified by certain Siebel Business Applications subprocesses. [Table 13](#) shows these possible overrides.

Table 13. Workflow Overrides for Siebel Communications, Media, and Energy

CME Customer Workflow	Subprocess
CUT eSales - Order Quote Process	Display Error Message
CUT eSales - Checkout Process	Login View
CUT eSales - Prepare Shopping Cart View	Display Error Message

## Workflows That Process an Order Checkout

This group of workflows processes an order checkout. It consists of the following workflow process and subprocesses:

- ["CUT eSales - Checkout Process" on page 228](#)
- ["CUT eSales - Set Quote Account Info" on page 229](#)
- ["eSales - Complete Checkout Process" on page 231](#)
  - ["eSales - Enter Shipping Details Process" on page 232](#)
    - ["eSales - Set Primary Account Address" on page 234](#)
    - ["eSales - Save Shipping Address" on page 235](#)
  - ["eSales - Enter Payment Details Process" on page 235](#)
    - ["CUT eSales - Bill Me Process" on page 237](#)
  - ["CUT eSales - Prepare Quote Process" on page 238](#)
  - ["eSales - Authorize Order Process" on page 239](#)

### CUT eSales - Checkout Process

This workflow calls multiple subprocesses to process an order checkout. [Figure 84](#) shows this workflow.

The user initiates this workflow by clicking the Checkout button in the Shopping Cart view.

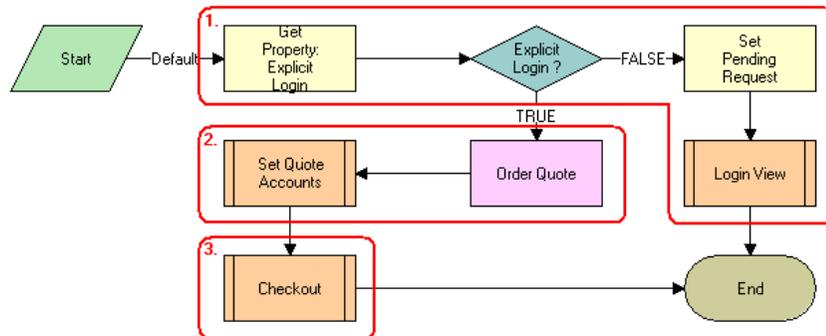


Figure 84. CUT eSales - Checkout Process Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if the user is logged in. If the user is not logged in, displays the Log In view and terminates.  
**NOTE:** Set Pending Request is set so that the workflow continues with the checkout process. However, you can configure this step to redefine the checkout process to meet your business needs.
- 2 If the user is logged in, stores the quote ID in the Current Checkout Quote Profile attribute and sets the account information for the quote. For more details, see [“CUT eSales - Set Quote Account Info” on page 229](#).
- 3 Completes the checkout process.

## CUT eSales - Set Quote Account Info

This workflow sets account information for a quote. [Figure 85](#) shows this workflow.

The CUT eSales – Checkout Process workflow calls this workflow as a subprocess.

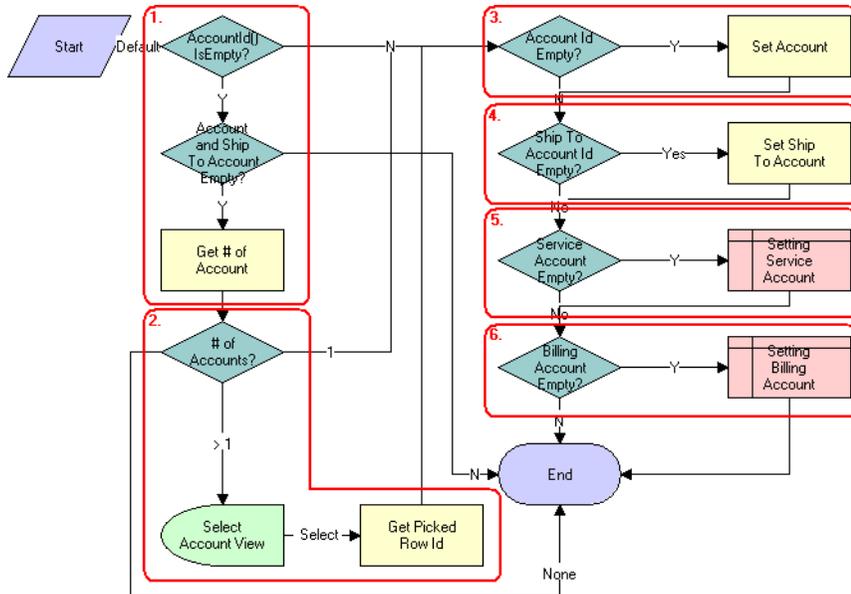


Figure 85. CUT eSales - Set Quote Account Info Workflow

**Workflow Description.** This workflow:

- 1 Retrieves the account for the user. If the user does not have an account and the user does not specify a ship-to account for the quote, counts the number of accounts for which the user is a contact.
- 2 If the user is a contact of more than one account, displays the Select Account view. The user must select an account.
- 3 If the user has an account, if an account is identified as the only account, or if the user selects the account, fills in the account.
- 4 If the user specifies the ship-to account, sets the account to the current account and fills in the account ID information with the quote.
- 5 If the service account is empty, sets the service account to the current account and fills in the account ID information with the quote.
- 6 If the billing account is empty, sets the billing account to the current account and fills in the account ID information with the quote.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
Get # of Accounts	GetBCCount

## eSales - Complete Checkout Process

This workflow displays the Order Summary view to allow the user to change shipping and payment details, cancel the order, and confirm the order. If the user continues shopping, the Shopping Cart view appears. If the user cancels the order, the Home Page appears. If the user continues with the order, depending on the order items, the CUT eSales – Auto Select Billing, Service Accounts Process, and CUT eSales – Authorize Order Process initialize to complete the order process. Figure 86 shows this workflow.

The CUT eSales - Checkout Process workflow calls this workflow as a subprocess.

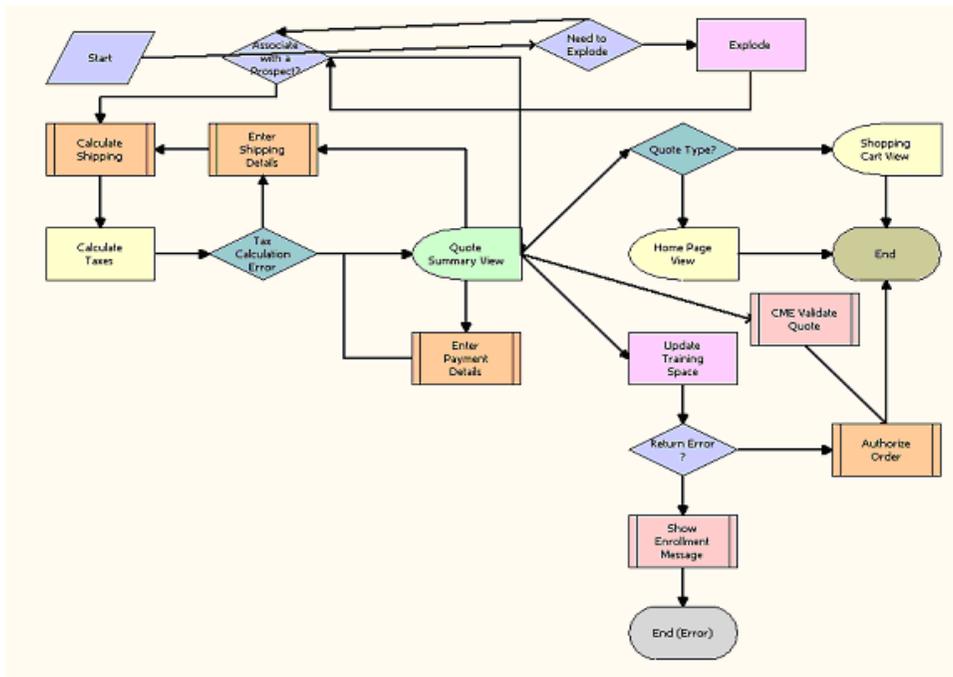


Figure 86. eSales - Complete Checkout Process Workflow

**Workflow Description.** This workflow:

- 1 Ungroups any item in the shopping cart that has a quantity of more than one. Ungroups items into multiple items with a quantity of one.
 

**CAUTION:** If you expect orders with large quantities (more than 200 items), then move this ungroup step to after order submission because ungrouping large quantities can adversely affect performance.
- 2 Checks to determine if any products are to be shipped. If any products are to be shipped, calculates the shipping costs.
- 3 Calculates the taxes.
 

If an error occurs, the user must enter shipping details again.
- 4 Saves the error message that the prior step returns.

- 5 If the tax calculation is successful, displays the Order Summary view.  
In this view, the user can change shipping details, change payment details, proceed with the order, and cancel the checkout.
- 6 If the user changes the shipping details, calls the Enter Payment Details subprocess. For more details, see [“eSales - Enter Payment Details Process” on page 235](#).
- 7 If the user cancels the checkout, returns the user to the Home Page if the user initiated the checkout from a quote or to the Shopping Cart view if the user initiated the checkout from the shopping cart.
- 8 If the user continues with the order, calls the Prepare Quote and Authorize Order processes to complete the checkout. For more details, see [“CUT eSales - Prepare Quote Process” on page 238](#) and [“eSales - Authorize Order Process” on page 239](#).

## eSales - Enter Shipping Details Process

This workflow specifies a destination address for shipping products. [Figure 87](#) shows this workflow.

The CUT eSales - Complete Checkout Process workflow calls this workflow as a subprocess.

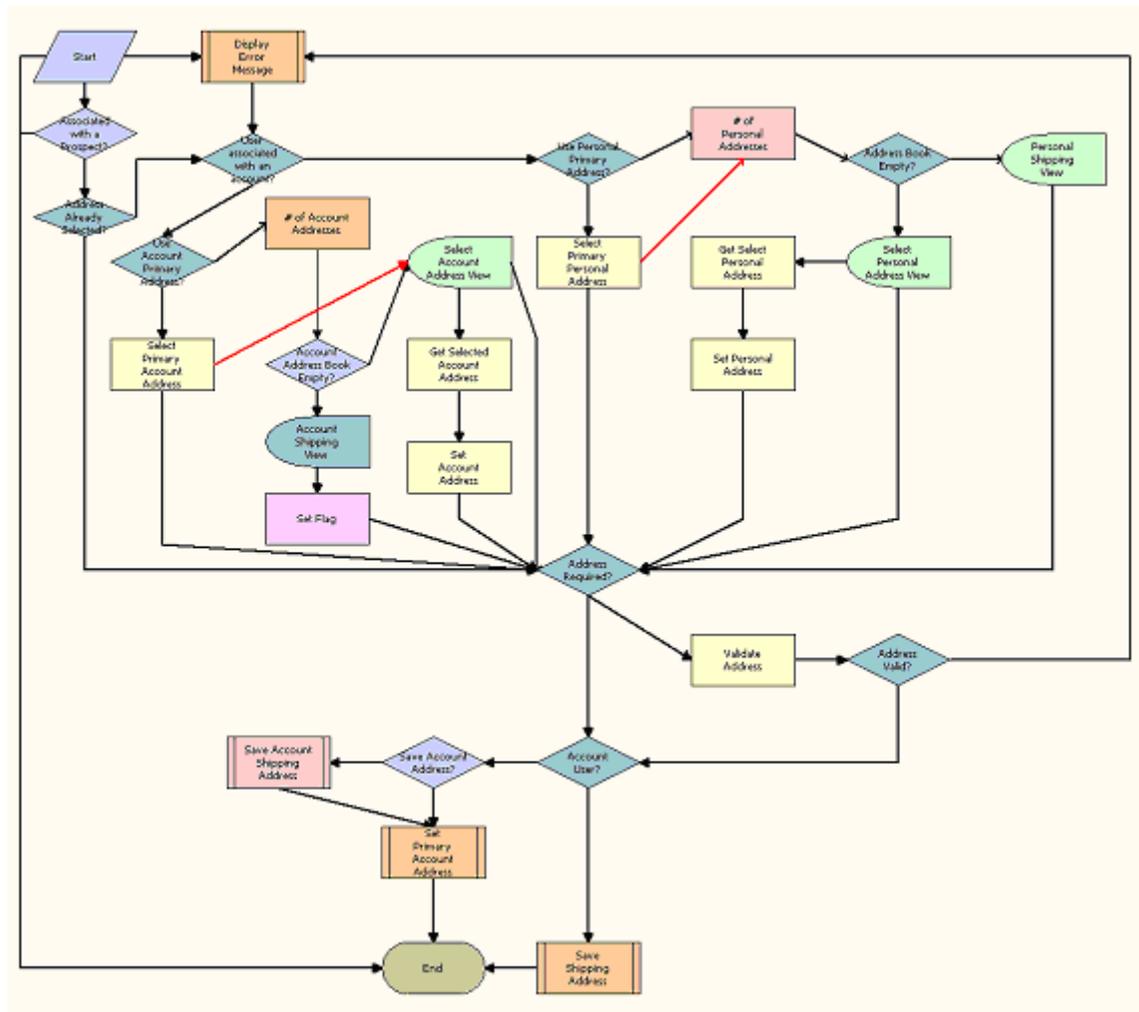


Figure 87. eSales - Enter Shipping Details Process Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if an address is selected.
- 2 If no address is selected, checks to determine if the user has an account. If the user has an account, checks to determine if the primary address of the account is used.
- 3 If the user has an account but the primary address is not used, displays the Select Account Address view. When the user selects an address, sets the selected address as the account address.
- 4 If the user has no account, checks the personal addresses for the user.

- 5 If the user has no personal address, and the user’s address book is empty, displays the Personal Shipping view.  
The user enters a shipping address.
- 6 If the user’s address book is not empty, displays the Select Personal Address view. When the user selects an address, sets the selected address as the user’s personal address.
- 7 If an address is required, validates the address. If an address is not required, displays an error message.
- 8 If the address is valid and the user has an account, sets the address as the primary address of the account. For more details, see [“eSales - Set Primary Account Address” on page 234](#).
- 9 If the user has no account and if the user sets the Save check box in the Personal Shipping view, saves the shipping address. For more details, see [“eSales - Save Shipping Address” on page 235](#).

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
# of Personal Addresses	GetBCCCount

## eSales - Set Primary Account Address

This workflow specifies a primary account address. [Figure 88](#) shows this workflow.

The CUT eSales - Enter Shipping Details Process workflow calls this workflow as a subprocess.

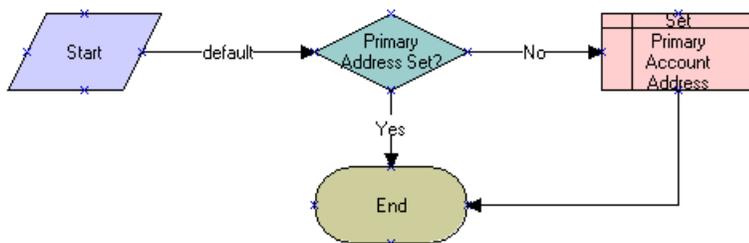


Figure 88. eSales - Set Primary Account Address Workflow

**Workflow Description.** This workflow:

- 1 Checks for a primary account address.
- 2 If no primary account address exists, sets the specified account address as the primary account address.

## eSales - Save Shipping Address

This workflow saves a shipping address for an account. [Figure 89](#) shows this workflow.

The CUT eSales - Enter Shipping Details Process workflow calls this workflow as a subprocess.

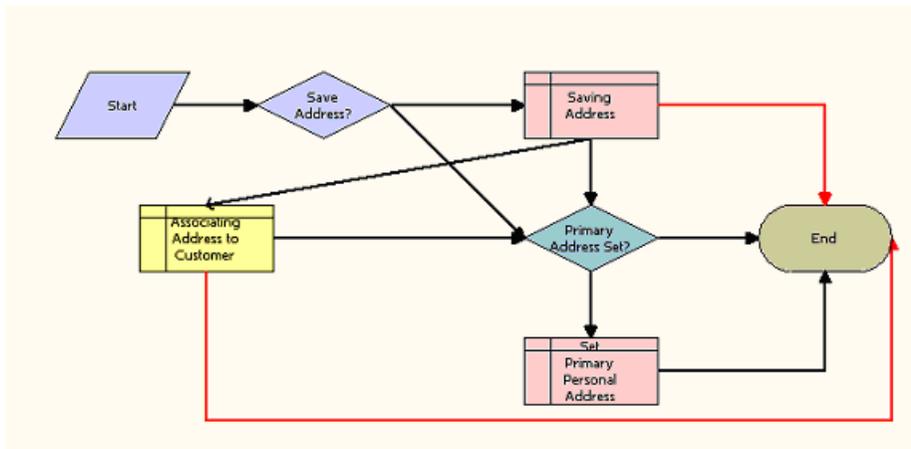


Figure 89. eSales - Save Shipping Address Workflow

**Workflow Description.** This workflow:

- 1 Saves the address.
- 2 If the workflow saves the address successfully, associates the address with the customer.
- 3 If the account does not have a set primary address, sets the new address as the primary address.

If any of these steps causes an error, the workflow terminates.

## eSales - Enter Payment Details Process

This workflow specifies the type of payment (credit card, purchase order, or future billing). [Figure 90](#) shows this workflow.



- 9 If the user selects the credit card payment method, clears the purchase order number and the retrieves selected credit card details.
- 10 If the user selects the purchase order payment method, clears the credit card details and sets the purchase order payment method.
- 11 If the user clicks Continue in the Standard Payment view, clears the purchase order number.
- 12 Validates the payment method. If the payment method is not valid, displays an error message.
- 13 If the credit card is valid, saves the credit card in the user's profile.

## CUT eSales - Bill Me Process

This workflow identifies and validates a billing address for the user. Figure 91 shows this workflow.

The CUT eSales - Enter Payment Details Process workflow calls this workflow as a subprocess.

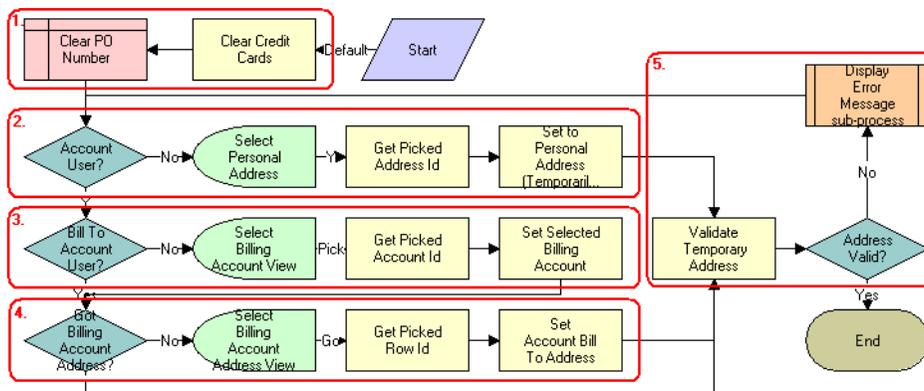


Figure 91. CUT eSales - Bill Me Process Workflow

**Workflow Description.** This workflow:

- 1 Clears any credit card and purchase order details.
- 2 If the users has no account, gets an address from the address book and sets the billing address to this address.  
**NOTE:** This address information is used to create a billing account for the user.
- 3 If the user has an account but does not have a billing account, displays the Select Billing Account view.  
The user selects the billing account to use.
- 4 When the user selects a billing account, if the account has no address, displays the Select Billing Account Address view.  
The user enters a billing address.

- 5 Validates the address by checking for required fields. If the fields are blank, displays an error message.

The user enters a valid address.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
Primary Billing Account	SelectPrimary

## CUT eSales - Prepare Quote Process

This workflow generates and returns the necessary event information for an order. Figure 92 shows this workflow.

The eSales - Complete Checkout Process workflow calls this workflow as a subprocess.

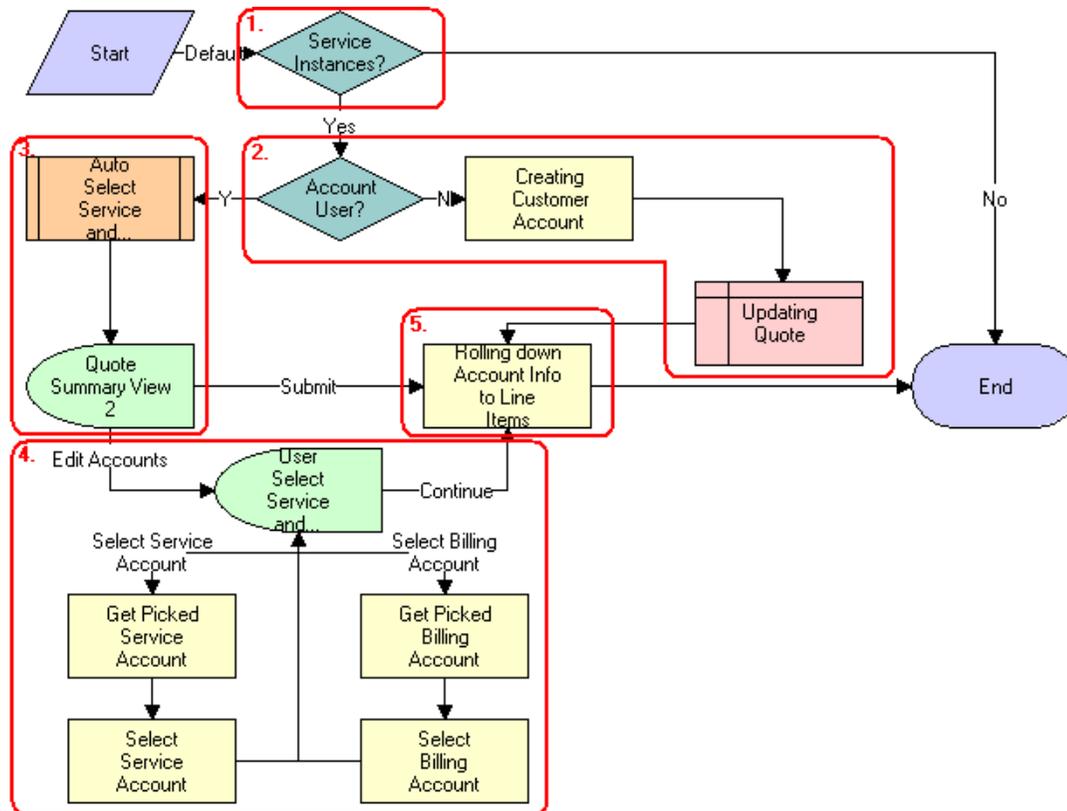


Figure 92. CUT eSales - Prepare Quote Process Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if any item in the shopping cart is a service instance. If no item is a service instance, terminates.
- 2 Checks to determine if the user has an account. If the user does not have an account, creates a customer account for the user (based on the shipping and billing address the user provided earlier in the checkout process) and sets the billing and service accounts for the quote to this new account.
- 3 If the user has an account, selects the billing and service account and displays these accounts in the Quote Summary view.  
In this view, the user can accept the selected accounts and confirm the order by clicking Submit, or the user can edit the accounts.
- 4 If the user edits the accounts, displays the User Select Service and Billing Account view.  
The user selects the required service and billing accounts.
- 5 If the Service and Billing Account fields do not change (the fields are still NULL), includes the default values for these fields in the service and billing information in the order header. If either the Service or Billing Account fields change, retains the current (non-NULL) value.

**Associated Business Service Methods.** The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Creating Customer Account	CreateOrder
Rolling Down Account Info to Line Items	SetLIAccounts

## eSales - Authorize Order Process

This workflow verifies payment details and creates a credit card order or purchase order, sends an email message for order approved, and displays the Order Confirmation view. [Figure 93](#) shows this workflow.

The eSales - Complete Checkout Process workflow calls this workflow as a subprocess.

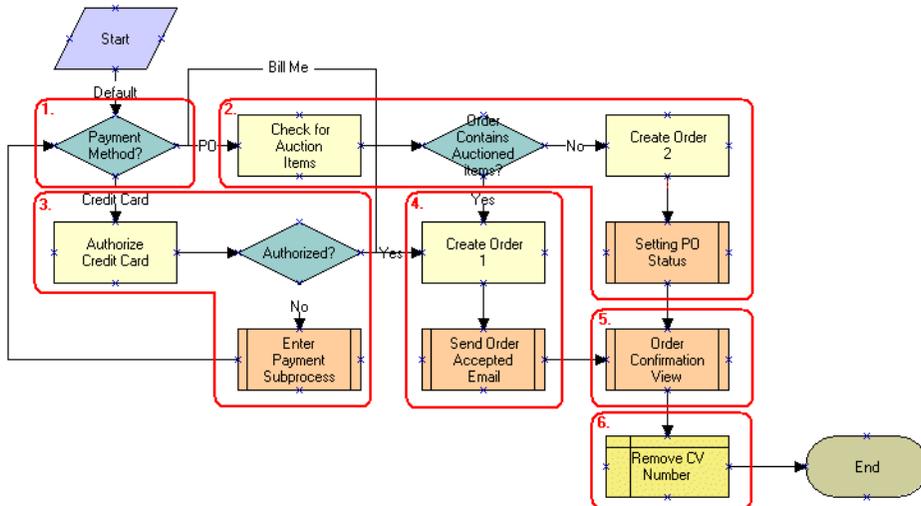


Figure 93. eSales - Authorize Order Process Workflow

**Workflow Description.** This workflow:

- 1 Checks the payment method that the user selects.
- 2 If the user pays by purchase order, checks to determine if the order includes any auctioned items. If the order includes no auctioned items, creates a purchase order.
- 3 If the user pays by credit card, authorizes the credit card. If the workflow cannot authorize the credit card, calls the Enter Payment subprocess.  
The user specifies an another payment method.
- 4 If the user pays using an authorized credit card, creates a credit card order and sends a confirmation email message to the user.
- 5 Explodes the order line items and creates multiple copies of any line item with a quantity greater than one.

## Workflow That Ungroups Quotes

This workflow ungroups the items of a quote (shopping cart). It consists of one workflow process, “CUT eSales - Ungroup Quote” on page 241.

## CUT eSales - Ungroup Quote

This workflow decomposes all or some line items into multiple instances with a quantity of one when the original quantity is greater than one. This workflow decomposes the root item for the selected item and all the children for this root item into multiple instances.

If the user selects some line items and clicks the Ungroup button, `FrameEventMethodUgroupSelected` is called to ungroup only the selected line items. If the user selects no line items and clicks the Ungroup button, `FrameEventMethodUgroupAll` is called to ungroup all the line items. [Figure 94](#) shows both variations of this workflow.

**NOTE:** If you use the variation to ungroup all items, you must change the configuration by removing the select item column from the shopping cart.

The user initiates this workflow by clicking the Ungroup button in the Shopping Cart view.

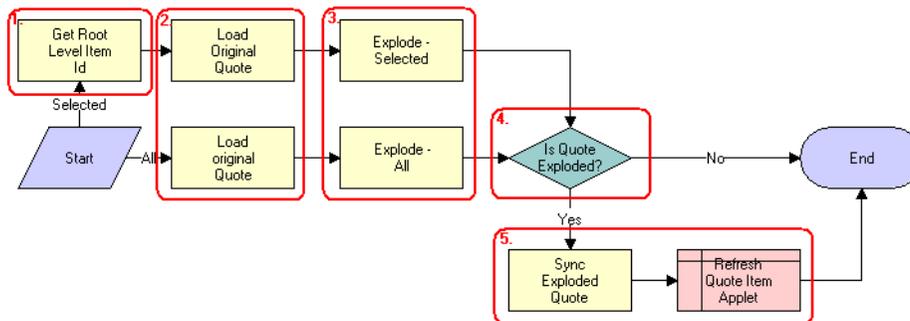


Figure 94. CUT eSales - Ungroup Quote Workflow

**Workflow Description.** This workflow:

- 1 If the user selects a quote line, retrieves the ID for the root level item.
- 2 Reads the quote from the database.
- 3 If the user selects some line items, and if the quantity of any component of a selected line item is greater than one, creates multiple copies of that line item, each with a quantity of one. If the user selects no line items, and if the quantity of any component of all line items is greater than one, creates multiple copies of that line item, each with a quantity of one.
- 4 If the quote is not completely ungrouped, terminates.
- 5 If the workflow does not terminate, writes line items to the database and refreshes the Shopping Cart view.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
Explode	Explode

## Workflow That Creates an Order For a Quote

This workflow creates an order from a saved quote. It consists of one workflow process, “[CUT eSales - Order Quote Process](#)” on page 242.

### CUT eSales - Order Quote Process

This workflow creates an order from the current quote by copying the line items from the quote to the order. [Figure 95](#) shows this workflow.

The user initiates this workflow by clicking the Order button in the Quote Detail view in the Siebel eSales application.

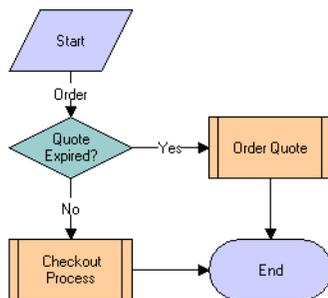


Figure 95. CUT eSales - Order Quote Process Workflow

**Workflow Description.** This workflow:

- 1 Checks to determine if the quote is expired. If the quote is not expired, calls the Checkout process. For more details, see “[CUT eSales - Checkout Process](#)” on page 228.
- 2 If the quote is expired, calls the Order Quote subprocess.

## Workflow That Edits a Delta Quote Line Item

This workflow edits a delta quote line item. It consists of one workflow process, “[CUT eSales - Edit Delta Quote Line Item](#)” on page 243.

## CUT eSales - Edit Delta Quote Line Item

This workflow applies open and pending orders to the asset for the selected line item and displays the asset in the Product Configurator view. The user makes changes to define the requested state of the asset and clicks the Done button. The workflow writes the difference between the current and requested state of the asset to the current quote as one or more line items. [Figure 96](#) shows this workflow.

A user initiates this workflow by clicking Customize in the Quote Detail view.

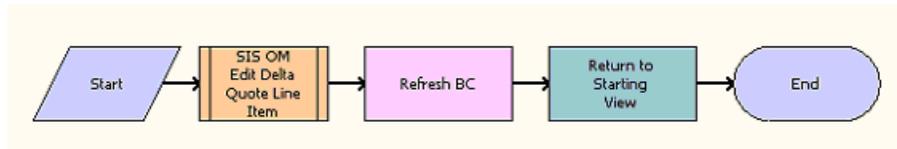


Figure 96. CUT eSales - Edit Delta Quote Line Item Workflow

**Workflow Description.** This workflow:

- 1 Calls SIS OM Edit Delta Quote Line Item to perform configuration.
- 2 Returns to the shopping cart.

## Workflows That Revise an Order

This group of workflows displays the latest version of a revised order. It consists of the following workflow process and subprocess:

- [“CUT eSales - Revise Order Process” on page 243](#)
  - [“CUT eSales - Goto Revise Order View” on page 244](#)

### CUT eSales - Revise Order Process

This workflow calls a subprocess to refresh the display. [Figure 97](#) shows this workflow.

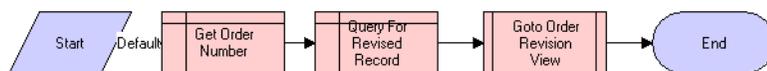


Figure 97. CUT eSales - Revise Order Process Workflow

**Workflow Description.** This workflow:

- 1 Calls Get Order Number.
- 2 Calls Query For Revised Record.

- 3 Calls Goto Order Revision View. For more details, see [“CUT eSales - Goto Revise Order View”](#) on page 244.

The new view appears.

## CUT eSales - Goto Revise Order View

This workflow displays the Revise Order view. [Figure 98](#) shows this workflow.

The CUT eSales - Revise Order Process workflow calls this workflow as a subprocess.



Figure 98. CUT eSales - Goto Revise Order View Workflow

**Workflow Description.** This workflow:

- 1 Retrieves the order number of the revised order.
- 2 Retrieves the latest revision of that order.
- 3 Displays this revision in the Order Revision view.

**NOTE:** Revising orders that are PO approved does not change the PO approval amount.

## Workflow That Rejects an Order

This workflow rejects an order. It consists of one workflow process, [“eSales - Reject Order Process”](#) on page 244.

### eSales - Reject Order Process

This workflow processes an order that a power user (Purchasing Manager or Delegated Administrator) rejects. [Figure 99](#) shows this workflow.

The user initiates this workflow by clicking the Reject button in the Order Approval view.

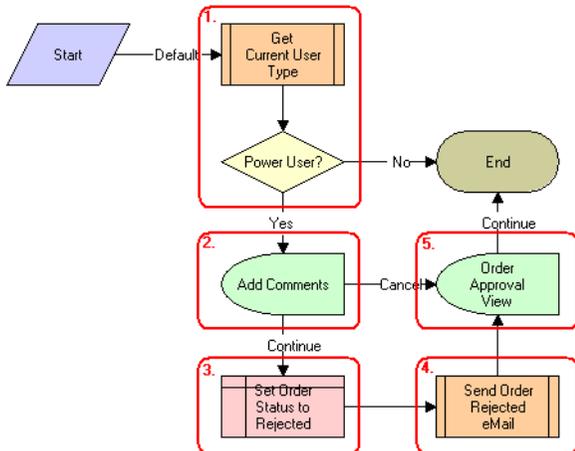


Figure 99. eSales - Reject Order Process Workflow

**Workflow Description.** This workflow:

- 1 Checks the type of user who rejects the order. If the user is not a power user (not a Purchasing Manager or Delegated Administrator), displays a message and terminates.
- 2 If the user is a power user, displays the Add Comments view.  
The user enters comments explaining the reason for order rejection or cancels the process.
- 3 If the user cancels the process, sets the order status to Rejected.
- 4 Sends an email message to the contact for the order to inform the contact of the rejection.
- 5 If the user continues the process, returns the user to the Order Approval view.

## Workflows That Modify Products and Installed Assets

This group of workflows modifies products and installed assets. It consists of the following workflow process and subprocess:

- “CUT eSales - Modify Products and Services Process” on page 245
  - “CUT eSales - Prepare Shopping Cart Process - Interactive” on page 246

### CUT eSales - Modify Products and Services Process

This workflow calls the SIS OM Edit Complex Asset Workflow to generate a quote line item to change the selected asset and displays the Quote Detail view. [Figure 100](#) shows this workflow.

The user initiates this workflow by clicking on the Modify button on the Installed Assets or Billing Items view in the Siebel eSales application.

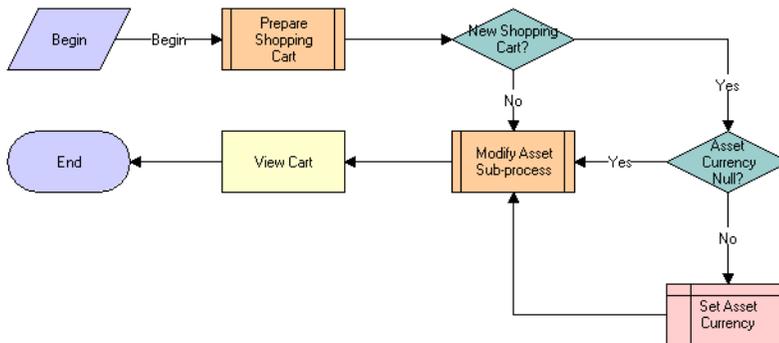


Figure 100.CUT eSales - Modify Products and Services Process Workflow

**Workflow Description.** This workflow:

- 1 Prepares the shopping cart so that users can add to the shopping cart the line items that specify the changes to the installed assets. For more details, see [“CUT eSales - Prepare Shopping Cart Process - Interactive”](#) on page 246.
- 2 If the shopping cart is new, checks the currency code for the asset. If no currency is specified, sets the currency to the default.
- 3 Calls the Modify Asset subprocess to modify the asset that is selected in the Installed Assets or Billing Items view.
- 4 When the asset is modified, displays the line items that specify the changes in the Shopping Cart view.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
View Cart	ViewCart

## CUT eSales - Prepare Shopping Cart Process - Interactive

This workflow prepares the Shopping Cart view. [Figure 101](#) shows this workflow.

The CUT eSales - Modify Products and Services Cart Process workflow calls this workflow as a subprocess.

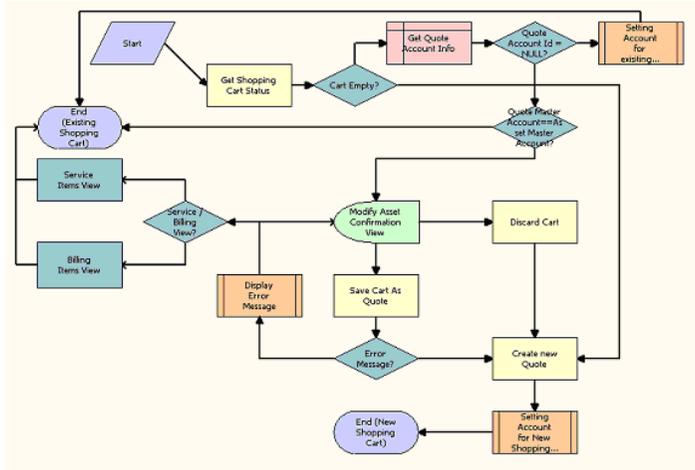


Figure 101. CUT eSales - Prepare Shopping Cart Process - Interactive Workflow

**Workflow Description.** This workflow:

- 1 Checks the status of the current shopping cart. If the shopping cart is empty, creates a new quote (shopping cart).
- 2 If the shopping cart is not empty and does not have an associated account, sets the account for the quote to the account to which the modified asset belongs. Then, the workflow terminates.
- 3 If the shopping cart is not empty and has an associated account, determines if the master account for the quote matches the master account to which the modified asset belongs. If the master accounts are the same, the workflow terminates.
- 4 If the master accounts are not the same, displays the Modify Asset Confirmation view. The user can save or discard the existing shopping cart, or cancel the modify process.
- 5 If the user cancels the modify process, displays the Installed Assets or Billing Items view depending on where the original process was called.
- 6 If the user saves the shopping cart, saves the shopping cart. If an error occurs, displays an error message and returns the user to the Modify Asset Confirmation view. If the cart is saved successfully, creates a new quote.
- 7 If the user discards the shopping cart, creates a new quote.
- 8 Sets the account for the quote to the account to which the modified asset belongs.

## Workflows That Disconnect Products and Services

This group of workflows disconnects products and services. It consists of the following workflow process and subprocess:

- “CUT eSales - Disconnect Products and Service Process” on page 248
  - “CUT eSales - Prepare Shopping Cart Process” on page 249

### CUT eSales - Disconnect Products and Service Process

This workflow calls the SIS OM Disconnect Asset subprocess to generate a quote line item to disconnect the selected asset and displays the Quote Detail view. [Figure 102](#) shows this workflow.

The user initiates this workflow by clicking the Disconnect button in Installed Assets or Billing Items view.

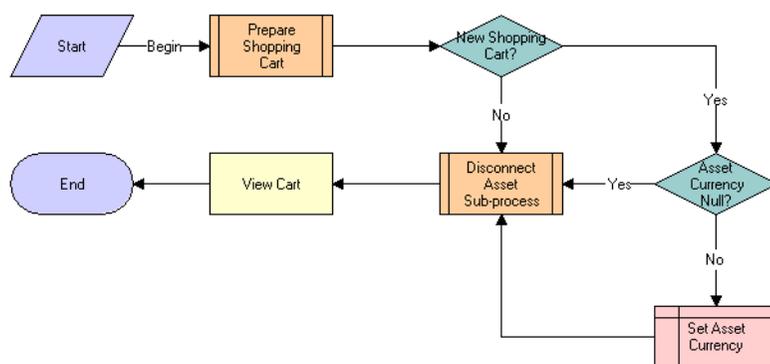


Figure 102. CUT eSales - Disconnect Products and Service Process Workflow

**Workflow Description.** This workflow:

- 1 Prepares the shopping cart so that the user can add to the shopping cart the line items that specify the disconnected installed assets. For more details, see “CUT eSales - Prepare Shopping Cart Process” on page 249.
- 2 If the shopping cart is new, checks the currency code for the asset. If no currency is specified, sets the currency to the default.
- 3 Calls the Disconnect Asset subprocess to disconnect the asset that is selected in the Installed Assets or Billing Items view.
- 4 When the asset is disconnected, displays the line items that specify the changes in the Shopping Cart view.

**Associated Business Service Methods.** The following table shows the step in this workflow that calls a business service method.

Workflow Step	Business Service Method Called
View Cart	ViewCart

## CUT eSales - Prepare Shopping Cart Process

This workflow prepares the Shopping Cart view.

The CUT eSales - Disconnect Products and Services Process calls this workflow as a subprocess. This workflow is identical to [“CUT eSales - Prepare Shopping Cart Process - Interactive” on page 246](#), except that this workflow does not use the Interactive Flow workflow mode.



# 9

## Setting Up Network Ordering

This chapter describes how to set up network ordering. It includes the following topics:

- [“About Network Ordering” on page 251](#)
- [“Process of Defining Compound Products for a Network” on page 253](#)
- [“Setting Up Premises” on page 258](#)
- [“About the Compound Product Validation Engine” on page 259](#)
- [“Example of Defining Compound Products for a Network” on page 262](#)
- [“About Creating Custom Rule Checkers” on page 268](#)

**NOTE:** In addition to completing the tasks in this chapter, you must activate the appropriate workflows to set up network ordering. For more information about activating workflows, see [“Activating Workflows for Order Management for Industry Applications” on page 20](#).

### About Network Ordering

You use the network order entry process to configure products that are too large to configure in real time with Siebel Configurator.

Large telecommunications networks might have 500 nodes and 1,000 connections. Each of these components might have 30 attributes. Use Siebel Configurator for small telecommunications networks that are less than about one-hundredth of this size. Configurator validates configuration in real time, and configuring large networks requires so much processing that real-time validation is not possible.

Network order entry configures products by:

- Partitioning the network into a number of components.
- Using Configurator to validate configuration of individual components in real time.
- Using the Compound Product Validation Engine to validate cross-component rules only at key times, such as when the user clicks the Validate button.

For example, [Figure 103](#) illustrates part of a network that uses a frame relay as its network product and several ports and PVCs as its components. Network order entry defines the network and its components as separate products. A foreign key field in the component products relates the components to the network product. Configurator validates the configuration of the individual network product and component products. The Compound Product Validation Engine validates the network across products.

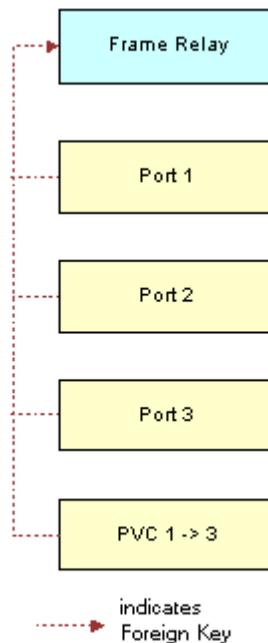


Figure 103.A Network and Its Components

Network order entry partitions the network into multiple components:

- Siebel Configurator handles intra-component validation rules.
- Business services handle validation rules for the entire multi-component network. Workflows that you can customize run these business services.

The Compound Product Validation Engine validates the network across components by applying rules, such as:

- A multipoint service must have at least two ports and at least one PVC.
- Any two ports can have only one connection.
- The to and from ports for a connection must exist in the multipoint service.
- The sum of the bandwidth attribute for all PVCs connected to a port cannot exceed the speed attribute of the port.

# Process of Defining Compound Products for a Network

A *network* is a compound product or a loose group of products that a common key ties together. The following component types make up the compound product structure:

- **Network.** The root network product in which you define values that apply across the entire network.
- **Network Node.** A point or a location in a network.
- **Network Connection.** A circuit connecting two points in a network.

Each of these network product components is a self-contained product that can be a customizable product, so users can configure each component of the network separately using Siebel Configurator. The compound product structure facilitates validation across all the individual products (cross-element validation).

To define a network as products, perform the following tasks:

- 1 [“Defining Products for the Network” on page 253](#). Define the network root product, the network node product, and the network connection product.
- 2 [“Defining Business Services for Rule Checkers” on page 255](#). Define the business services to call to validate the compound product.
- 3 [“Defining Maximum and Minimum Quantities for Network Components” on page 256](#). Optionally, define maximum and minimum quantities that components require.
- 4 [“Defining Error Messages for Compound Product Rules” on page 256](#). Create error messages that the simple expression rules use. You create simple expression rules in the next step.
- 5 [“Defining Simple Expression Rules for Compound Products” on page 257](#). Create simple expression rules that validate the entire network and display messages if errors occur.

## Defining Products for the Network

You must define all the network elements, including the network product and the network components, as products.

This task is a step in [“Process of Defining Compound Products for a Network” on page 253](#).

### Defining the Network Product

You can define the network product for network ordering (for example, the frame relay) in the same way that you define other customizable products using the Customizable Products view of the Administration - Products screen, but you must enter information in additional fields.

Configurator rules are not required but you can use these rules if needed.

For more information about defining customizable products, see *Siebel Product Administration Guide*.

### *To define the network product*

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, add a new record and define the product the same way that you define other products.
- 3 In the More Info form, use the fields described in the following table.

Field	Description
Compound Product	Select this checkbox to define this product as a compound product.
Network Element Type	Select Network.

### **Defining Network Components as Products**

When customers order networks, salespeople add nodes and connections (for example, ports and PVCs) to the network.

You must set up each of these products using Administration - Products screen, Customizable Products view, Product Designer and Rule Designer subviews to make sure that salespeople select only valid combinations of features for each node and connection.

To allow the salesperson to add these components to the network, you must:

- Create product records for all the different types of nodes and connections that you sell as network components:
  - Model each node as an individual customizable product. For example, you might create a product for Port that has Installation and Local Access Line as child components. Set the Network Element Type of the root of the customizable product to Network Node. Do not set the Compound Product flag.
  - Model each connection as an individual customizable product. For example, you might create a product for PVC with components that include CIR, Diversity, and so on. Set the Network Element Type of the root of the customizable product to Network Connection. Do not set the Compound Product flag.
- Set up Configurator rules defining valid combinations of features for each of these ports, accesses, and PVCs.

For more information about creating products and configuration rules, see *Siebel Product Administration Guide*.

### *To define the network components as products*

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, add a new record and define the product the same way that you define other products.

- In the More Info form, use the fields described in the following table.

Field	Description
Network Element Type	Select Network Node or Network Connection.
Compound Product	Deselect this checkbox.

## Defining Business Services for Rule Checkers

The Compound Product Validation Engine business service executes the cross-product validation rules for a compound product and returns any rule violations. The product administrator defines the rules for each of the compound products.

Table 14 shows the rule-checker business services that are available without any product customization.

Table 14. Business Services for Checking Compound Product Validation Rules

Business Service	Description
VORD CPVE Component Cardinality Checker Service	This business service validates that the quantity of network component is between the minimum and maximum allowed.
VORD CPVE Simple Validation Expression Checker Service	This business service executes rules defined in Siebel Query Language.

This task is a step in [“Process of Defining Compound Products for a Network”](#) on page 253.

### *To define rules for a compound product*

- Navigate to the Administration - Products screen.
- In the Products list, click the name of the compound product.
- Click the Compound Product view tab.
- In the link bar, click Product Rules.
- In the Product Rules list, add a new record for each rule checker to execute and complete the fields described in the following table.

Field	Description
Sequence	The sequence in which the rule is executed.
Business Service	Name of the business service that implements the rule.

- 6 In the Parameters list, specify the parameters and values that are specific to the selected rule.  
The Compound Validation Engine passes these values to the PreValidate and Validate methods of the rule checker business service. For more information, see the topic about creating custom rule checkers in *Siebel Product Administration Guide*.

## Defining Maximum and Minimum Quantities for Network Components

The Component Cardinality Checker business service allows product administrators to specify the maximum and minimum quantities of the network product and of the network components.

This task is a step in [“Process of Defining Compound Products for a Network”](#) on page 253.

### *To define maximum and minimum quantities for network components*

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, click the name of the compound product for the network.
- 3 Click the Compound Products view tab.
- 4 In the link bar, click Cardinality Rules.

The Compound Product Cardinality Rules list includes all the products that are valid components of this network.

- 5 Click New to add a component to the compound product and complete the fields described in the following table.

Field	Description
Min Qty	Enter the minimum quantity required for this component.
Max Qty	Enter the maximum quantity required for this component. If this field is blank, an unlimited quantity of this component is allowed.

**NOTE:** You must include the compound product in this list, with Min Qty of 1 and Max Qty of 1.

## Defining Error Messages for Compound Product Rules

Before you create simple expression rules for compound products, you must use the Unified Messaging Service to define the error messages that these rules display. For more information about using the Unified Messaging Service to define messages, see *Siebel Order Management Infrastructure Guide*.

This task is a step in [“Process of Defining Compound Products for a Network”](#) on page 253.

***To define error messages for compound product rules***

- 1 Navigate to the Administration - Order Management screen, then the Message Types view.
- 2 In the All Message Types list, add a new record and complete the necessary fields, as described in *Siebel Order Management Infrastructure Guide*.

The message that you enter in the Full Text field appears.

## Defining Simple Expression Rules for Compound Products

The simple expression checker business service allows product administrators to use Siebel Query Language to create simple expressions that the application uses to validate a compound product. For each rule, you define a simple expression and select an error message that you define using the Unified Messaging Service. If the expression is true, the application displays the error message to the user and does not validate the compound product.

For more information about Oracle's Siebel Query Language, see the topic about operators, expressions, and conditions in *Siebel Developer's Reference*.

This task is a step in ["Process of Defining Compound Products for a Network"](#) on page 253.

***To define simple expression rules for compound products***

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, click the name of the compound product for the network.
- 3 Click the Compound Products view tab.
- 4 In the link bar, click Simple Validation Expression Rules.
- 5 In the Compound Products list, add one or more new records and complete the necessary fields. Some fields are described in the following table.

Field	Description
Sequence	The sequence in which the rule is executed.
Message	Select the error message that appears if the expression is true.

Field	Description
Search Expression	<p>Enter an expression in Siebel Query Language.</p> <p>The expression can refer to fields in the following business components.</p> <ul style="list-style-type: none"> <li>■ Asset Mgmt – Asset                             <ul style="list-style-type: none"> <li>■ Asset Mgmt - Asset XA</li> </ul> </li> <li>■ Quote Item                             <ul style="list-style-type: none"> <li>■ Order Item XA</li> </ul> </li> <li>■ Order Entry – Line Item                             <ul style="list-style-type: none"> <li>■ Order Item XA</li> </ul> </li> </ul>
Aggregate Function	Enter the type of query to run. Valid values are Count, Sum, Min, Max, and Avg.
Aggregate Field	If the expression uses an aggregate function of Sum, Min, Max, or Avg, enter the name of the field to aggregate.
Group By Fields	If the expression uses an aggregate function, optionally enter a comma separated list of fields by which to group the Aggregate function.
Having Expression	If the expression uses an aggregate function, enter an expression that generates an error message. For example, if you use the [Count] function to count the number of records with an error, you do not want to generate an error message when [Count] = 0, so in this field, enter [Count] >= 1.

## Setting Up Premises

This optional task automatically populates fields when the salesperson captures the customer network locations or creates the customer network. When creating a network node, a salesperson enters the location service address, and the application populates the LATA, CLLI, and other fields based on the information that you enter when you set up premises.

**NOTE:** The user can also enter this data in the Address Profile view of the Accounts screen.

### *To set up premises*

- 1 Navigation to the Administration - Data screen.
- 2 On the link bar, click Premises.
- 3 In the All Premises list, add a new record.
- 4 In the More Info form, click the More button.

- 5 Fill out the necessary information in the record and More Info form. Some fields are described in the following table.

Field	Description
Prefix	Enter the area code and first three digits of the telephone number for this location.
CLLI	Enter the Common Language Location Identifier (CLLI) code. This standard is used primarily in the United States.
LATA	Enter the Local Access and Transport Area (LATA). This term is used in the United States and defines a geographic area that a local telephone carrier covers.
Rate Center	Enter the rate center. A rate center is a geographic area that contains one or more NPA NXX codes. A rate center helps determine the cost of traffic to and from two points.
Local Operating Company	Select the local telecommunications service provider. The dialog box displays all accounts for which Wireline Operating Company is in the Account Type field.

## About the Compound Product Validation Engine

The Compound Product Validation Engine executes validation rules that cross product instances.

A compound product is a group of product instances in quote, order and asset tables that share a common key. A Frame Relay Network is an example of a compound product.

The Compound Product Validation Engine allows you to create rules that operate on a projected future state of a compound product that includes the current quote and any open orders on the existing assets. This future state is created and stored in the Projected Asset Cache object.

## Overview of Compound Product Validation

Figure 104 illustrates how the Compound Product Validation Engine and its supporting components validate a compound product when a user clicks Validate.

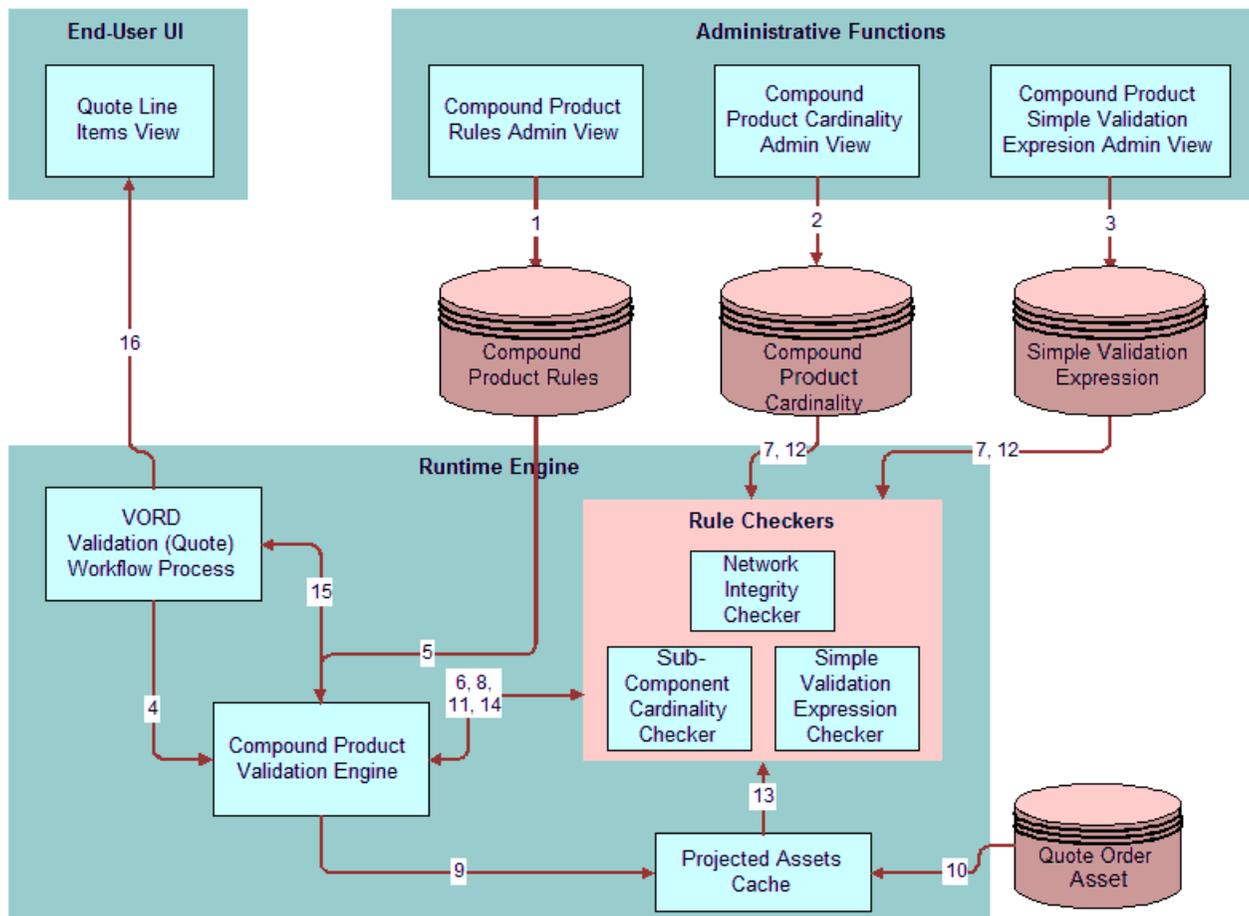


Figure 104. Steps in Compound Product Validation

As Figure 104 illustrates, Compound product validation consists of the following steps:

- 1 Product manager defines the cross-product validation business services rules for the top-level product in the Compound Product Rules Admin View. For more information, see [“Defining Business Services for Rule Checkers”](#) on page 255.
- 2 Product manager defines the component cardinality rules for the top-level product in the Compound Product Cardinality Admin View and enters basic validation rules in the Compound Product Simple Validation Expression Admin View. For more information, see [“Defining Maximum and Minimum Quantities for Network Components”](#) on page 256 and [“Defining Simple Expression Rules for Compound Products”](#) on page 257.

- 3 The user creates a change quote for the compound product. The user validates the individual components using Configurator. After exiting Configurator and completing the network connections, the user clicks Validate. The Validate button calls a named method on the Quote Item business component, which calls the VORD Validate (Quote) workflow process.
- 4 The VORD Validate (Quote) workflow process determines the selected compound product instance. This workflow process also determines the future date for which to validate the network based on the latest requested date of quote line items for the network. For more information, see the Future Date step in VORD Validate (Quote) in the topic about creating custom rule checkers in *Siebel Product Administration Guide*. This workflow process then calls the Compound Product Validation Engine business service.
- 5 The Compound Product Validation Engine retrieves the compound product validation rules for the top-level product. For more information, see the Validate step in VORD Validate (Quote) in the topic about creating custom rule checkers in *Siebel Product Administration Guide*.
- 6 For each rule, the Compound Product Validation Engine calls the Pre-Validate method on the corresponding business service.
- 7 If necessary, the rule checker business service retrieves product specific data related to the rule (for example, the cardinality constraints for sub-components of the compound product).
- 8 The rule checker determines the fields and attributes it requires and returns them to the Compound Product Validation Engine, which accumulates a list of fields and attributes that all rule checkers require.
- 9 The Compound Product Validation Engine prompts the Projected Assets Cache to retrieve the compound product instance limited to fields and attributes that the business service validation rules for the compound product require.
- 10 The Projected Assets Cache retrieves all asset records for the compound product. The cache then retrieves all open order line items due to complete before the specified due date and updates the records retrieved from the asset table to create a future state. All changes to the compound product instance in the current quote or current order are applied to generate the true future requested state.
- 11 For each rule, the Compound Product Validation Engine calls the associated rule checker business service method.
- 12 If necessary, the rule checker business service retrieves product specific data related to the rule (for example, the cardinality constraints for sub-components of the compound product).
- 13 The rule checker business service queries the Projected Assets Cache to evaluate the rule (for example, the rule checker gets the bandwidth for each PVC connected to a node).
- 14 The rule checker business service returns a list of rule violations to the Compound Product Validation Engine.
- 15 The Compound Product Validation Engine accumulates the violations for each rule and returns them to the VORD Validate (Quote) workflow process.

**16** The Compound Product Validation Engine business service displays the error message that the user defines in Message Types view.

**NOTE:** The Compound Product Validation Engine operates independently of a customizable product definition. Furthermore, the engine validates only the top-level component and its immediate attributes. This note affects your modeling of network products.

## Tasks of the Compound Product Validation Engine

The Compound Product Validation Engine is a business service that performs these major steps:

- 1** Finds and sets the future date to pass to the Projected Asset Cache so that only line items with a due date prior to the future date are loaded to the Projected Asset Cache.
- 2** Calls all the compound product business service rules for the product ID of the passed compound product and accumulates all the required unique fields and attributes in these business service rules.
- 3** Initializes the Projected Asset Cache and passes the cache the required fields and attributes as parameters. The Projected Asset Cache builds the in-memory future requested compound product instance.
- 4** Calls all associated business services and rules to operate on the in-memory object instance containing the future projected state of the compound product.
- 5** Aggregates the error messages for all the rule violations into a single error message to display to the user.

For details about each of rule checker business service methods, see the topic about creating validation rules for compound products in *Siebel Product Administration Guide*.

## Projected Asset Cache

The Projected Asset Cache holds an in-memory version of the future requested state of the compound product instance. For information about the Projected Asset Cache, see *Siebel Order Management Infrastructure Guide*.

# Example of Defining Compound Products for a Network

This example shows you how to define a network composed of the following products:

- **Frame Relay Network.** The network product.
- **Frame Relay Port.** The node product.
- **Frame Relay PVC.** The connection product.

This example shows one method of defining compound products for a Network. Depending on your business requirements, you might use a different method.

To define a compound product for a network, perform the following tasks:

- 1 "Defining the Frame Relay Network Product" on page 263
- 2 "Defining the Frame Relay Port Product" on page 263
- 3 "Defining the Frame Relay PVC Product" on page 264
- 4 "Defining Business Services for Rule Checkers" on page 265
- 5 "Defining Maximum and Minimum Quantities for Network Components" on page 265
- 6 "Defining Error Messages for Compound Product Rules" on page 266
- 7 "Defining Simple Expression Rules for Compound Products" on page 267

## Defining the Frame Relay Network Product

The Frame Relay Network is the network product for this sample network. All compound product rules are associated with this product.

In the network product, you can define attributes that apply across the entire network. For example, if the same hardware vendor applies to all the products in the network, you can define the vendor as an attribute of the Frame Relay Network.

### *To define the Frame Relay Network product*

- 1 Navigate to the Administration - Products screen.
- 2 In the Products list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Value
Product Name	Frame Relay Network
Compound Product	True
Network Element Type	Network

## Defining the Frame Relay Port Product

In most cases, model the Frame Relay Port product as an individual customizable product.

**NOTE:** Although in most cases you must model the Frame Relay Port product as an individual customizable product to model valued added services such as reports and installation, you can model the Frame Relay Port product as a simple product and still use the Compound Product Validation Engine.

The attributes of the product can include port speed, level for quality of service, and so on. If you model your nodes as customizable products, you must make sure that the attributes to use in cross-product validation rules are associated to the root component.

The sub-components of the product might include Local Access Line and Installation.

### To define the Frame Relay Port product

- 1 Navigate to the Administration - Products screen.
- 2 In the Products list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Value
Product Name	Frame Relay Port
Compound Product	False
Network Element Type	Network Node

- 3 For a customizable product, set up Configurator rules to define the valid combinations in the product.

For more information about creating products and configuration rules, see *Siebel Product Administration Guide*.

### Defining the Frame Relay PVC Product

In most cases, model the Frame Relay PVC product as an individual customizable product.

**NOTE:** Although in most cases you must model the Frame Relay PVC product as an individual customizable product to model valued added services such as reports and installation, you can model the Frame Relay Port product as a simple product and still use the Compound Product Validation Engine.

The attributes of the product can include Committed Information Rate (CIR), Diversity, and PVC Type (Symmetrical or Asymmetrical).

The sub-components of the product might include Installation and value add services such as PVC Reports.

### To define the Frame Relay PVC product

- 1 Navigate to the Administration - Products screen.
- 2 In the Products list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Value
Product Name	Frame Relay PVC
Compound Product	False
Network Element Type	Network Connection

- For a customizable product, set up Configurator rules to define the valid combinations in the product.

For more information about creating products and configuration rules, see *Siebel Product Administration Guide*.

## Defining Business Services for Rule Checkers

After you define individual products, you begin defining the features of the entire compound network product.

First, you specify the rule checker business services used to validate this product. In this example, you use the business services for network ordering. In other cases, you might create and use custom business services to validate the network. For more information, see the topic about creating custom rule checkers in *Siebel Product Administration Guide*.

### To define rule checker business services

- In the Products list, click the name of the Frame Relay Network product that you created earlier.
- Click the Compound Products view tab.
- In the linkbar, click Rules
- In the Product Rules list, add a new record and complete the fields described in the following table.

Field	Value
Sequence	1
Business Service	VORD CPVE Component Cardinality Checker Service

- In the Product Rules list, add another new record and complete the fields described in the following table.

Field	Value
Sequence	2
Business Service	VORD CPVE Simple Validation Expression Checker Service

**NOTE:** Do not add the following business services: VORD CPVE Validation Service and VORD Projected Asset Cache. The VORD Validation (Quote) and VOR Validation (Order) workflow processes or other services call these two services. If you add these services an error occurs.

## Defining Maximum and Minimum Quantities for Network Components

In this example:

- The Frame Relay Network is the compound product. The compound product must have a minimum quantity of 1 and a maximum quantity of 1.

- The Frame Relay Port product is the node. A network has at least two nodes. A network cannot exist without at least two nodes. Therefore, you define a minimum quantity of 2 for the Frame Relay Port product.
- The Frame Relay PVC product (the circuit connecting the two ports) is the connection. Because the two nodes must be connected, you define a minimum quantity of 1 for the Frame Relay PVC product.

Because this network can be as large as the customer wants in the boundaries of the network reach of the provider, you do not enter a Maximum Quantity for the Frame Relay Port and Frame Relay PVC products.

Because the Cardinality Checker is a compound product business service, it operates on the Projected Asset Cache. Therefore, these rules apply across the current quote, existing assets, and open orders on the assets. For example, if a customer has five Frame Relay Ports and attempts to disconnect four of them, the validation displays an error message indicating that the customer no longer has the minimum quantity for the Frame Relay Port product.

### *To define maximum and minimum quantities for network components*

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, click the name of the compound product for the network (the Frame Relay Network product).
- 3 Click the Compound Products view tab.
- 4 In the link bar, click Cardinality Rules.

The Compound Product Cardinality Rules list includes all the products that are valid components of this network.

- 5 For each product, enter the appropriate value in the Maximum Quantity and Minimum Quantity fields in the following table.

Product	Minimum Quantity	Maximum Quantity
Frame Relay Network	1	1
Frame Relay Port	2	None.
Frame Relay PVC	1	None.

## Defining Error Messages for Compound Product Rules

In this example, you define an error message. A rule that validates if all nodes have a service address uses this error message.

### *To define error messages for compound product rules*

- 1 Navigate to the Administration - Order Management screen, then the Message Types view.

- In the All Message Types list, add a new record and complete the fields in the following table.

Field	Value
Name	Service Address Error Message
Title	Validation that All Nodes Have a Service Address
Full Text	[Count] [Product]s are missing service addresses

## Defining Simple Expression Rules for Compound Products

Finally, you define simple expression rules that validate across the compound product and that generate error messages. In this example, the rule checks to determine if all nodes have a service address and then displays the error message that you defined in the previous step.

### *To define simple validation expression rules for compound products*

- In the Administration - Product screen, in the Compound Products view, in the link bar, click Simple Validation Expression Rules.
- In the Compound Products list, add one or more new records and complete the necessary fields. Some fields are described in the following table.

Field	Value
Seq	1
Search Expression	([Network Element Type] = "Network Node" AND [Service Address] = "")
Aggregate Function	Count
Group By Fields	[Product Name]
Having Expression	[Count]>0
Message	Service Address Error Message

## Other Samples of Validation Rules and Messages

Table 15 includes more samples of simple expression rules that you can use to validate network ordering. The first column contains the message that you enter in the Short Text and Long Text fields of the Message Type record. The next four columns contain the values that you enter in each Simple Validation Expression Rule record. The last column contains an explanation of the rule.

The first row in the table repeats the example in the previous step. You create the samples in the other rows in the same way you create the previous example. You enter the text of the message in the Message Type record, and then, when you enter values in the Simple Validation Rule record, you select the name of the appropriate Message Type record.

Table 15. Samples of Simple Expression Rules

Message Text	Search Expression	Aggregate Function	Group By Fields	Having Expression	Explanation
[Count] [Product]s are missing service addresses	(([Network Element Type] = "Network Node" AND [Service Address] = ""))	Count	[Product Name]	[Count]>0	Validates that all Nodes have a service address.
[Count] [Product] are missing a "Service Address" and/or a "To Service Address"	(([Network Element Type] = "Network Connection" AND (([Service Address] = "") OR ([To Service Address] = ""))))	Count	[Product Name]	[Count]>0	Validates that all connections have a service address for each end of the connection.
[Product] at [Service Address] must have a different "To Service Address"	(([Network Element Type] = "Network Connection" AND ([Service Address] = [To Service Address])))	None.	None.	None.	Validates that the addresses for each end of a connection are different.
[Count] [Product] are missing a from node, a to node, or both	(([Network Element Type] = "Network Connection" AND ([Node] = "" OR [To Node] = "")))	Count	[Product Name]	[Count]>0	Validates that all connections have a node for each end of the connection.

## About Creating Custom Rule Checkers

To create custom rule checkers for network ordering, follow the same guidelines for creating custom rule checkers for product validation. For more information, see the topic about product validation in *Siebel Product Administration Guide*.

The application provides rule checkers that are the same for network ordering and for product validation.

# 10 Using Network Ordering

This chapter describes how users work with network ordering. It includes the following topics:

- [“Process of Ordering New Networks” on page 269](#)
- [“Viewing a Network as a Billing or Service Item” on page 274](#)
- [“Process of Ordering New Sites in Existing Networks” on page 275](#)
- [“Process of Upgrading Bandwidth at Network Sites” on page 279](#)
- [“Process of Disconnecting a Site from a Network” on page 282](#)

For information about setting up network ordering, see [Chapter 9, “Setting Up Network Ordering.”](#) For general information about network ordering, see [“About Network Ordering” on page 251.](#)

## Process of Ordering New Networks

A salesperson can order a new network for a new customer. The salesperson adds the customer and all features of the network.

To order a new network, perform the following tasks:

- 1 [“Creating an Account and Locations for a New Network” on page 269](#)
- 2 [“Creating a Quote for a New Network” on page 270](#)
- 3 [“Adding Nodes to a New Network” on page 271](#)
- 4 [“Adding Connections to a New Network” on page 272](#)
- 5 [“Validating a Quote for a Network” on page 273](#)
- 6 [“Creating an Order for a New Network” on page 273](#)
- 7 [“Converting a Completed Network Order to Assets” on page 274](#)

## Creating an Account and Locations for a New Network

When a salesperson orders a new network for a new customer, first the salesperson creates a new account representing the customer and add locations for all the nodes of the network.

For more information about creating an account, see *Siebel Applications Administration Guide*.

This task is a step in [“Process of Ordering New Networks” on page 269.](#)

### ***To create an account and locations for a new network***

- 1 Navigate to the Accounts screen, then the Accounts List view.

- 2 In the Accounts list, add a new record, and enter basic information about the account.
- 3 Click the name of the account.
- 4 Click the view tabs, and add more information about the contacts at the account, the account profile, and other data needed to create the account.
- 5 Click the Address Profile view tab.
- 6 In the Address Profile list, add a new record for each location of a node in the network, and enter information about that location.

The following fields are automatically populated based on data for the premise: Prefix, CLLI, LATA, and Rate Center. For more information, see [“Setting Up Premises” on page 258](#).

## Creating a Quote for a New Network

After adding records for all the locations of network nodes, the salesperson can create a quote for the new network. Later, the salesperson attaches all the components of the new network to this quote.

For more information about creating a quote, see *Siebel Order Management Guide*.

This task is a step in [“Process of Ordering New Networks” on page 269](#).

### *To create a quote for a new network*

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.  
The Customer Portal view appears.
- 3 In the Installed Assets list, click New.  
If the account type is not Residential, the Line Item view of the Quotes screen appears.
- 4 In the Quote Header form, click the More button.
- 5 In the Network field, enter a name for the new network.

This field automatically defaults to the quote number. Enter a descriptive name to overwrite the number. The application uses this name as a key to link together components of the network and as the default for the Network field for all line items in the quote.

- 6 In the Line Items list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Description
Product	Select a product with a Network Element Type of Network. For example, select a Frame Relay.
Qty	Enter 1.

## Adding Nodes to a New Network

After creating a quote for a new network, a salesperson adds components of the network as line items of the quote. The salesperson must add a line item for each of the network nodes. For example, if the network nodes are ports, the salesperson must add a line item for each port.

Add nodes most efficiently by adding one line item with a quantity of the number of nodes in the entire network. Then configure that line item with the attributes and components that are applicable to all nodes. Then ungroup that item to create a separate line item for each node.

This task is a step in [“Process of Ordering New Networks”](#) on page 269.

### *To add nodes to a new network*

- 1 Select the quote that represents the network.
- 2 Click the Line Items view tab.
- 3 In the Line Items list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Description
Product	Select a product with a Network Element Type of Network Node. For example, if Frame Relay is the network product, select Frame Relay Port as the network node product.
Qty	Enter the number of nodes in the network.

- 4 For this line item, click Customize and use Configurator to enter the attributes that are common to all the nodes in the network.
- 5 In the Line Items list, click Ungroup.  
The line item is ungrouped, and a separate line item exists for each node in the network.
- 6 Enter details for each node:
  - a In the Line Items list, select one of the node line items.
  - b Click the Network Line Detail view tab.
  - c In the Network Line Detail form, in the Node field, enter the name of the node.  
Enter a descriptive name, such as the name of the city in which this node is located. This name is used to connect to this node.
  - d In the Network Line Detail form, in the Service Address field, select the address of this node.  
The Prefix and CLLI field are automatically populated based on data for the premise.
  - e Enter attributes for the node that are different from the common attributes that you enter in [Step 4](#).  
For a simple product, click the Attributes view tab and enter the attributes in the Attributes form. For a customizable product, click Customize to enter the attributes for the line item.

- 7 Repeat [Step 6](#) for all of the nodes in the Line Items list.

## Adding Connections to a New Network

After creating a quote for a new network, a salesperson adds components of the network as line items of the quote. The salesperson must add a line item for each of the network connections, for example, for each of the PVCs.

This task is a step in [“Process of Ordering New Networks”](#) on page 269.

### *To add connections to a new network*

- 1 Select the quote that represents the network.
- 2 Click the Line Items view tab.
- 3 In the Line Items list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Description
Product	Select a product with a Network Element Type of Network Connection. For example, select Frame Relay PVC as the network connection product.
Qty	Enter the number of connections in the network.

- 4 For this line item, click Customize and use Configurator to enter the attributes that are common to all the connections of the network.
- 5 In the Line Items list, click Ungroup.  
The line item is ungrouped, and a separate line item exists for each connection in the network.
- 6 Enter details for each connection:
  - a In the Line Items list, select one of the connection line items.
  - b Click the Network Line Detail view tab.
  - c In the Network Line Detail form, in the From section, in the Node field, select a node for this connection.  
In the dialog box, you can select nodes from across the entire network.
  - d In the Network Line Detail form, in the To section, in the Node field, select the other node for this connection.  
The To node must be different from the node you select as the From node.
  - e In the Service Address field, select a service address for the From and To Nodes.  
Only addresses for the selected service account are available for selection.

- f Enter any attributes of the connection that are different from the common attributes that you enter in [Step 4](#).

For a simple product, click the Attributes view tab and enter the attributes in the Attributes form. For a customizable product, click Customize to enter the attributes for the line item.

- 7 Repeat [Step 6](#) for all of the connections in the Line Items list.

## Validating a Quote for a Network

After a salesperson enters all the components of a new network, the salesperson must validate the quote and correct any errors.

This task is a step in [“Process of Ordering New Networks”](#) on page 269.

### *To validate a quote for a network*

- 1 In the Network Line Detail form, click Validate.

Though the network product or any network component record is selected, the entire network is validated.

A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, “Setting Up Network Ordering.”](#)

- 2 Change network line items to resolve any listed errors.
- 3 Repeat [Step 1](#) and [Step 2](#) until you correct all errors.

## Creating an Order for a New Network

After creating a quote for a new network, the salesperson presents the quote to the customer as a proposal document or in some other form. After the customer approves this proposal, the salesperson converts the quote to an order and adds final additional engineering details if necessary.

This task is a step in [“Process of Ordering New Networks”](#) on page 269.

### *To create an order for a new network*

- 1 Navigate to the Quotes screen, then the List view.
- 2 In the Quotes list, click the Name field for the quote for the network.
- 3 In the Quote Header form, click Auto Order.  
The quote is converted to an order.
- 4 Click the Network Line Detail view tab.
- 5 Add additional details (for example, the service ID and port number) to network components, as needed.

- 6 Click Validate.

A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, "Setting Up Network Ordering."](#)

- 7 Change network components to resolve any listed errors.
- 8 Repeat [Step 6](#) and [Step 7](#) until you correct all errors.
- 9 To submit the order, click Submit.

## Converting a Completed Network Order to Assets

As components of the network order are installed, convert the line items representing these components to assets so that you can track these assets for service and change orders.

For more information about converting orders to assets, see the topic about the workflow that applies an order to the service profile in *Siebel Order Management Guide*.

**NOTE:** Before configuration, you can use the Auto Asset button to convert line items to assets. However, during configuration, the Auto Asset button is usually removed, and the process is automated. If the Auto Asset button is available, use the following procedure.

This task is a step in ["Process of Ordering New Networks"](#) on [page 269](#).

### *To convert the network order to an asset*

- 1 Navigate to the Sales Order screen, then the List view.
- 2 Click the name of the network order that you want to convert.
- 3 For each root line item:
  - a Select Complete in the Status field of all subcomponents.
  - b Click Auto Asset.

## Viewing a Network as a Billing or Service Item

In the Billing Items view or Service Items view, only the network product appears.

This view does not list the other products that are components of this network. If you click the name of the network product, the Networks screen displays the network product with all of the components.

### *To view a network as a billing item or a service item*

- 1 Navigate to the Accounts screen, then the Accounts List view.

- 2 In the Accounts list, click the name of the appropriate account.

The Customer Portal view appears. The Billing Items list and Service Items list include the network products for the selected account.

- 3 Click the name of a billing item or service item that is a network product.

The Networks screen appears with this network product selected in the Networks list.

**NOTE:** Click the view tabs of the Networks screen to view network components and process changes orders for network components.

## Process of Ordering New Sites in Existing Networks

A salesperson can take an order to add a new site to an existing customer network.

To order a new site in an existing network, perform the following tasks:

- 1 [“Adding a Location for a New Network Site” on page 275](#)
- 2 [“Creating a Quote for a New Network Site” on page 276](#)
- 3 [“Adding a Node for a New Network Site” on page 276](#)
- 4 [“Adding a Connection for a New Network Site” on page 277](#)
- 5 [“Validating a Quote for a New Network Site” on page 277](#)
- 6 [“Creating an Order for a New Network Site” on page 278](#)
- 7 [“Converting an Order for a New Network Site to Assets” on page 278](#)

### Adding a Location for a New Network Site

When a salesperson takes an order to add a new site to an existing customer network, first the salesperson adds the location of the site.

For more information about working with accounts, see *Siebel Applications Administration Guide*.

This task is a step in [“Process of Ordering New Sites in Existing Networks” on page 275](#).

#### ***To add a location for a new network site***

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the account for the new site.
- 3 Click the Address Profiles view tab.

- 4 In the Addresses list, add a new record for the location to add to the network, and enter information about that location.

The following fields are automatically populated based on data for the premise: Prefix, CLLI, LATA, and Rate Center. For more information, see [“Setting Up Premises” on page 258](#).

## Creating a Quote for a New Network Site

After adding a record for a location for the network site, the salesperson creates a quote for the network. The information about the products at the new site are line items of this quote.

This task is a step in [“Process of Ordering New Sites in Existing Networks” on page 275](#).

### *To create a quote for a new network site*

- 1 Navigate to the Networks screen.
- 2 In the Networks list, select the network to which to add a site.
- 3 Click the Nodes view tab.
- 4 In the Nodes list, click New.

The Line Items view of the Quotes screen appears with the quote populated with information about this account and network.

- 5 To confirm the your selected network, in the Quote Header form, click the More button and look at the Network field.

## Adding a Node for a New Network Site

After creating a quote for a new network site, the salesperson adds a line item for the node at that site.

This task is a step in [“Process of Ordering New Sites in Existing Networks” on page 275](#).

### *To add a node for a new network site*

- 1 In the Line Items view, add a line item for a product with the Network Element Type of Network Node.

For example, if you use Frame Relay as the network product, use Frame Relay Port as the network node product.

- 2 Click the Network Line Detail view tab.

- 3 Enter details for the node:

- a In the Network Line Detail form, in the Node field, enter the name of the node.

Enter a descriptive name, such as the name of the city in which this node is located. This name is used to connect to this node.

- b** In the Network Line Detail form, in the Service Address field, select the address of this node.  
The Prefix and CLLI field are automatically populated based on data for the premise.
- 4** Click Customize and use Configurator to enter the attributes of this node.

## Adding a Connection for a New Network Site

After creating a quote for a new network site, a salesperson adds a line item for the connection at that site.

This task is a step in [“Process of Ordering New Sites in Existing Networks”](#) on page 275.

### *To add a connection for a new network site*

- 1** In the Line Items view of the Quotes screen, click Add Item and add a line item for a product with the Network Element Type of Network Connection.

For example, you can select Frame Relay PVC as the network connection product.

- 2** Click the Network Line Detail view tab.

- 3** In the Network Line Detail form, enter details for the connection:

- a** In the From section, in the Node field, select a node for this connection.

In the dialog box, you can select nodes from across the entire network.

- b** In the To section, in the Node field, select the other node for this connection.

The To node must be a different node you select as the From node.

**NOTE:** When selecting the From and To nodes, you can select from the existing nodes and the new sites just added to this quote.

- 4** Click Customize and use Configurator to enter the attributes for this connection.

## Validating a Quote for a New Network Site

After entering the components at the new network site as line items in a quote, the salesperson validates the network to make sure that this site is compatible with the rest of the network.

This task is a step in [“Process of Ordering New Sites in Existing Networks”](#) on page 275.

### *To validate a quote for a network site*

- 1** In the Network Line Detail form, click Validate.

A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, “Setting Up Network Ordering.”](#)

- 2** Change network components at this site to resolve any listed errors.

- 3 Repeat [Step 1](#) and [Step 2](#) until you correct all errors.

## Creating an Order for a New Network Site

After creating a quote for a new network, the salesperson presents the quote to the customer as a proposal document or in some other form. After the customer approves this proposal, the salesperson converts the quote to an order and adds final additional engineering details if necessary.

This task is a step in [“Process of Ordering New Sites in Existing Networks”](#) on page 275.

### *To create an order for a new network site*

- 1 Navigate to the Quotes screen, then the List view.
- 2 In the Quotes list, click the Name field for the quote for the network site.
- 3 In the Quote Header form, click Auto Order.  
The quote is converted to an order.
- 4 Click the Network Line Detail view tab.
- 5 Add additional details (for example, the service ID and port number) to network components, as needed.
- 6 Click Validate.  
A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, “Setting Up Network Ordering.”](#)
- 7 Change network components to resolve any listed errors.
- 8 Repeat [Step 6](#) and [Step 7](#) until you correct all errors.
- 9 To submit the order, click Submit.

## Converting an Order for a New Network Site to Assets

As components of the network order are installed, convert the line items representing these components to assets so that you can track these assets for service and change orders.

For more information about converting orders to assets, see the topic about the workflow that applies an order to the service profile in *Siebel Order Management Guide*.

**NOTE:** Before configuration, you can use the Auto Asset button to convert line items to assets. However, during configuration, the Auto Asset button is usually removed, and the process is automated. If the Auto Asset button is available, use the following procedure.

This task is a step in [“Process of Ordering New Sites in Existing Networks”](#) on page 275.

***To convert a line item representing a network component to an asset***

- 1 Navigate to the Sales Order screen, then the List view.
- 2 Click the order number of the network order that you want to convert.
- 3 Click the Line Items view tab.
- 4 For each line item that represents a network component:
  - a Select Complete in the Status field.
  - b Click Auto Asset.

## Process of Upgrading Bandwidth at Network Sites

A salesperson can take an order to upgrade bandwidth at an existing network site.

This example of how to upgrade bandwidth assumes that:

- The Frame Relay Port product has a port speed attribute.
- The Frame Relay PVC product has a Committed Information Rate (CIR) attribute.

These attributes represent the bandwidth.

The actual process of upgrading bandwidth depends on the attributes defined to represent bandwidth.

To upgrade bandwidth at a network site, perform the following tasks:

- 1 [“Displaying a Network to Upgrade” on page 279](#)
- 2 [“Upgrading Bandwidth at a Network Site” on page 280](#)
- 3 [“Upgrading Bandwidth of a Network Connection” on page 280](#)
- 4 [“Validating a Network After Bandwidth Upgrade” on page 281](#)
- 5 [“Creating an Order to Upgrade Bandwidth” on page 281](#)
- 6 [“Converting a Completed Order to Upgrade Bandwidth to Assets” on page 281](#)

## Displaying a Network to Upgrade

To upgrade bandwidth at an existing network site, first you display the network to upgrade.

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

***To display a network to upgrade***

- 1 Navigate to the Networks screen.
- 2 In the Networks list, select the network to upgrade.

## Upgrading Bandwidth at a Network Site

To upgrade the bandwidth at an existing network site, you must increase the speed of the network node product, for example, the port speed of the Frame Relay Port product.

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

**NOTE:** If you model all of your network components as simple products, instead of using this procedure and the following procedure, you can navigate to the All Network Elements view of the Networks screen and select both the Network Node and the Network Connection that you want to upgrade. After you select the two or more items, click Modify and a new change quote appears with all selected items as line items. Then navigate to the Attributes view tab and upgrade accordingly.

### *To upgrade bandwidth at a network site*

- 1 After selecting the network to upgrade, click the Nodes view tab.
- 2 Use a query to find the nodes that you want to modify in the Nodes list.
- 3 After reviewing the current bandwidth in the attributes applet, click Modify.  
A Configurator session appears. You can increase the port speed as required.
- 4 Click Done.  
A change quote appears.

## Upgrading Bandwidth of a Network Connection

To upgrade the Committed Information Rate (CIR) on a network connection, you use the change quote that appears after the last step in [“Upgrading Bandwidth at a Network Site” on page 280](#).

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

### *To upgrade the bandwidth of a network connection*

- 1 After modifying the speed of the node, click Back to return to the Connections view.
- 2 Select the network connection that you want to upgrade and view the current CIR for this connection.
- 3 Click Modify.  
A Configurator session appears. You can increase the speed of the network connection CIR.
- 4 Click Done.  
The change quote appears with a second line item you add.

## Validating a Network After Bandwidth Upgrade

After upgrading bandwidth at an existing site, the salesperson validates the network to make sure that this site is compatible with the rest of the network.

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

### *To validate a quote for a network*

- 1 In the Network Line Detail form, click Validate.

A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, “Setting Up Network Ordering.”](#)

- 2 Change network components in the quote to resolve any listed errors.
- 3 If necessary, return to the network view and modify other components to make the components compatible with the changes at this site.
- 4 Repeat [Step 1](#) though [Step 3](#) until you correct all errors.

## Creating an Order to Upgrade Bandwidth

After creating a quote to upgrade bandwidth at an existing site, the salesperson presents the quote to the customer as a proposal document or in some other form. After the customer approves this proposal, the salesperson converts the quote to an order.

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

### *To create an order to upgrade bandwidth at a network site*

- 1 Navigate to the Quotes screen, then the List view.
- 2 In the Quotes list, click the Name field for the quote for the upgrade.
- 3 In the Quote Header form, click Auto Order.  
The quote is converted to an order.
- 4 To submit the order, click Submit.

## Converting a Completed Order to Upgrade Bandwidth to Assets

As components to upgrade bandwidth are installed, convert the line items representing these components to assets so that you can track these assets for service and change orders.

For more information about converting orders to assets, see the topic about the workflow that applies an order to the service profile in *Siebel Order Management Guide*. For more information about assets, see *Siebel Field Service Guide*.

**NOTE:** Before configuration, you can use the Auto Asset button to convert line items to assets. However, during configuration, the Auto Asset button is usually removed, and the process is automated. If the Auto Asset button is available, use the following procedure.

This task is a step in [“Process of Upgrading Bandwidth at Network Sites” on page 279](#).

### ***To convert a line item representing a network component to an asset***

- 1 Navigate to the Sales Order screen, then the List view.
- 2 Search to display the network order.
- 3 For each line item that represents a network component:
  - a Select Complete in the Status field.
  - b Click Auto Asset.

## **Process of Disconnecting a Site from a Network**

A salesperson can take an order to disconnect a site from a network.

To disconnect a site from a network, perform the following tasks:

- 1 [“Disconnecting a Network Node and Connections” on page 282](#)
- 2 [“Validating a Network After Site Disconnection” on page 283](#)
- 3 [“Creating an Order to Disconnect a Network Site” on page 283](#)
- 4 [“Updating Assets After Network Site Disconnection” on page 283](#)

## **Disconnecting a Network Node and Connections**

When a salesperson disconnects a node from a network, all connections for that node are automatically disconnected.

This task is a step in [“Process of Disconnecting a Site from a Network” on page 282](#).

### ***To disconnect a node and all associate connections***

- 1 Navigate to the Networks screen.
- 2 In the Networks list, select the network for the node to disconnect.
- 3 Click the Nodes view tab.

- 4 In the Nodes list, select the node and click Disconnect.

A new quote is created. The node and any of its connections are copied to the quote and marked for deletion.

## Validating a Network After Site Disconnection

After disconnecting a node, the salesperson validates the network to make sure that removing this node does not compromise the network integrity.

This task is a step in [“Process of Disconnecting a Site from a Network” on page 282](#).

### *To validate a quote for a network*

- 1 In the Network Line Detail form, click Validate.

A dialog box appears indicating that the network is valid, or a dialog box appears listing network errors. If this dialog box does not appear or appears with an unexpected message, the product is not set up correctly. For more information, see [Chapter 9, “Setting Up Network Ordering.”](#)

- 2 Change network components to resolve any listed errors.
- 3 Repeat [Step 1](#) and [Step 2](#) until you correct all errors.

## Creating an Order to Disconnect a Network Site

After creating a quote to disconnect a network site, the salesperson summarizes the changes to make and captures the due date. When the customer confirms this order, the salesperson converts the quote to an order.

This task is a step in [“Process of Disconnecting a Site from a Network” on page 282](#).

### *To an order to disconnect a network site*

- 1 Navigate to the Quotes screen, then the List view.
- 2 In the Quotes list, click the Name field for the quote for the disconnection.
- 3 In the Quote Header form, click Auto Order.  
The quote is converted to an order.
- 4 To submit the order, click Submit.

## Updating Assets After Network Site Disconnection

When the work to disconnect each component at a network site is complete, update the customer assets so that these assets no longer include the component.

For more information about converting orders to assets, see the topic about the workflow that applies an order to the service profile in *Siebel Order Management Guide*.

**NOTE:** Before configuration, you can use the Auto Asset button to convert line items to assets. However, during configuration, the Auto Asset button is usually removed, and the process is automated. If the Auto Asset button is available, use the following procedure.

This task is a step in [“Process of Disconnecting a Site from a Network”](#) on page 282.

### ***To update assets after disconnecting a network site***

- 1** Navigate to the Sales Order screen, then the List view.
- 2** Click the name of the disconnect order.
- 3** For each line item that represents a disconnected component:
  - a** Select Complete in the Status field of all subcomponents.
  - b** Click Auto Asset.

# 11 Web Services Reference

This chapter describes the Web services for the integration of Siebel Order Management for Industry Applications with an application for managing billing and revenue. These Web services are part of the Siebel CRM Web Services offering.

This chapter includes the following topics:

- [Web Service Summary on page 286](#)
- [Configuring Web Services on page 287](#)
- [CalculateShippingChargeSalesOrderSiebelReqABCImpl on page 287](#)
- [CheckATPSalesOrderSiebelReqABCImpl on page 289](#)
- [ConfiguratorUserLangSiebelAdapter on page 291](#)
- [CreditCheckSalesOrderSiebelReqABCImpl on page 293](#)
- [PaymentAuthorizationSalesOrderSiebelReqABCImpl on page 294](#)
- [SWIOrderUpsert on page 296](#)
- [SWIProductAttributeImport on page 298](#)
- [SWIProductClassImport on page 299](#)
- [SWIProductImport on page 301](#)
- [SWIPromotionIntegration on page 303](#)
- [SWIQuoteUpsert on page 305](#)
- [SWISubmitOrder on page 306](#)
- [SWISubmitOrder\\_o2c on page 307](#)
- [SWISubmitQuote\\_o2c on page 309](#)

For more information about Web services, including a list of Siebel Industry Applications and Siebel Business Applications Web services in addition to the preceding, see *Siebel CRM Web Services Reference*.

# Web Service Summary

Table 16 shows the namespace and type for the Web services that are described in this chapter.

Table 16. Web Service Summary

Web Service Name	Namespace	Type
<a href="#">CalculateShippingChargeSalesOrderSiebelReqABCSImpl</a>	http://xmlns.oracle.com/ABCSImpl/Siebel/Core/CalculateShippingChargeSalesOrderSiebelReqABCSImpl/V1	Outbound
<a href="#">CheckATPSalesOrderSiebelReqABCSImpl</a>	http://xmlns.oracle.com/ABCSImpl/Siebel/Core/CheckATPSalesOrderSiebelReqABCSImpl/V1	Outbound
<a href="#">ConfiguratorUserLangSiebelAdapter</a>	http://xmlns.oracle.com/ConfiguratorUserLangSiebelAdapter	Outbound
<a href="#">CreditCheckSalesOrderSiebelReqABCSImpl</a>	http://xmlns.oracle.com/ABCSImpl/Siebel/Core/CreditCardCheckSalesOrderSiebelReqABCSImpl/V1	Outbound
<a href="#">PaymentAuthorizationSalesOrderSiebelReqABCSImpl</a>	http://xmlns.oracle.com/ABCSImpl/Siebel/Core/PaymentAuthorizationSalesOrderSiebelReqABCSImpl/V1	Outbound
<a href="#">SWIOrderUpsert</a>	http://siebel.com/asi	Inbound
<a href="#">SWIProductAttributeImport</a>	http://siebel.com/asi	Inbound
<a href="#">SWIProductClassImport</a>	http://siebel.com/asi	Inbound
<a href="#">SWIProductImport</a>	http://siebel.com/asi/vO	Inbound
<a href="#">SWIPromotionIntegration</a>	http://siebel.com/asi/SWIPromotionIntegration	Inbound
<a href="#">SWIQuoteUpsert</a>	http://siebel.com/asi	Inbound
<a href="#">SWISubmitOrder</a>	http://siebel.com/asi	Outbound
<a href="#">SWISubmitOrder_o2c</a>	http://siebel.com/asi	Outbound
<a href="#">SWISubmitQuote_o2c</a>	http://siebel.com/asi	Outbound

## Configuring Web Services

The Process Integration Packs (PIPs) in the Oracle Application Integration Architecture can use the Web services described in this chapter. To configure a Web service, you change the URI address for its service ports. For information about exposing Web services, see *Siebel CRM Web Services Reference*.

A call into the Siebel Call Center module for Siebel Order Management for Industry Applications uses an inbound Web service. To configure the inbound Web services, complete the steps in the following procedure.

### *To configure the inbound Web services*

- 1 Navigate to the Administration - Web Services screen, then the Inbound Web Services view.
- 2 Query for the Web service name in the Inbound Web Services list.
- 3 If the Web service is not active, change its status from Inactive to Active, and click Clear Cache.
- 4 In the Service Ports list for the Web service, change the following text strings in the Address field to the appropriate data for your server:
  - *webservice*
  - *lang*
  - *UserName*
  - *Password*

A call out of the Siebel Call Center module for Siebel Order Management for Industry Applications uses an outbound Web service. To configure the outbound Web services, complete the steps in the following procedure.

### *To configure the outbound Web services*

- 1 Navigate to the Administration - Web Services screen, then the Outbound Web Services view.
- 2 Query for the Web service name in the Outbound Web Services list.
- 3 In the Service Ports list for the Web service, change the web server name and port in the Address field to the appropriate data for your server.

## CalculateShippingChargeSalesOrderSiebelReqABCImpl

Use this Web service to get information about the shipping costs of a sales order.

## CalculateShippingChargeSalesOrderSiebelReqABCSImpl Operations

For a list of operations associated with this Web service, see [Table 17](#).

Table 17. CalculateShippingChargeSalesOrderSiebelReqABCSImpl Operations

Name	Description
CalculateShippingCharge	Gets information about sales order.

### Request Message Description: CalculateShippingCharge

For a description of this request message, see [Table 18](#).

Table 18. Request Message Description: CalculateShippingCharge

Node	Description	Type
CalculateShippingChargeSalesOrderReqMsg: ListOfSWIOrderIOReq	Optional	Hierarchy
CustomerHeaderContext	Optional	Hierarchy

### Response Message Description: CalculateShippingCharge

For a description of this response message, see [Table 19](#).

Table 19. Response Message Description: CalculateShippingCharge

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
CalculateShippingChargeSalesOrderRespMsg: ListOfSWIOrderIOResp	Optional	Hierarchy
XMLHierarchyOutput	Optional	Hierarchy
faultactor	Optional	String
faultcode	Optional	String
faultstring	Optional	String
SiebelFaultMsg: Fault	Optional	Integration Object

## CalculateShippingChargeSalesOrderSiebelReqABCSImpl Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 20](#).

Table 20. CalculateShippingChargeSalesOrderSiebelReqABCImpl Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendCalculateShippingCharge	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 21](#).

Table 21. CalculateShippingChargeSalesOrderSiebelReqABCImpl Data Object

Siebel Repository Name	External Name
SWIOrderIO	SWIOrderIO
Fault	Fault

**Methods**

For a description of the methods for this Web service, see [Table 22](#).

Table 22. CalculateShippingChargeSalesOrderSiebelReqABCImpl Methods

Operation	Method
CalculateShippingCharge	CalculateShippingCharge

# CheckATPSalesOrderSiebelReqABCImpl

Use this Web service to check the availability and location of a requested product.

**CheckATPSalesOrderSiebelReqABCImpl Operations**

For a list of operations associated with this Web service, see [Table 23](#).

Table 23. CheckATPSalesOrderSiebelReqABCImpl Operations

Name	Description
CheckATP	Synchronizes the account.

**Request Message Description: CheckATP**

For a description of this request message, see [Table 24](#).

Table 24. Request Message Description: CheckATP

Node	Description	Type
CheckATPSalesOrderReqMsg:ATPCheckInterfaceRequestOrders	Optional	Hierarchy
CustomHeaderContext	Optional	Hierarchy

**Response Message Description: CheckATP**

For a description of this response message, see [Table 25](#).

Table 25. Response Message Description: CheckATP

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
CheckATPSalesOrderRespMsg:ATPCheckInterfaceResponseOrders	Optional	Hierarchy
XMLHierarchyOutput	Optional	Hierarchy
faultactor	Optional	String
faultcode	Optional	String
faultstring	Optional	String
SiebelFaultMsg: Fault	Optional	Integration Object

**CheckATPSalesOrderSiebelReqABCImpl Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 26](#).

Table 26. CheckATPSalesOrderSiebelReqABCImpl Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendATPCheck	Workflow	Not applicable
SWISendATPCheckLine	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 27](#).

Table 27. CheckATPSalesOrderSiebelReqABCImpl Data Object

Siebel Repository Name	External Name
SWIOrderIO	SWIOrderIO
Fault	Fault

**Methods**

For a description of the methods for this Web service, see [Table 28](#).

Table 28. CheckATPSalesOrderSiebelReqABCImpl Methods

Operation	Method
CheckATP	CheckATP

# ConfiguratorUserLangSiebelAdapter

Use this outbound Web service to launch Siebel Configurator.

**ConfiguratorUserLangSiebelAdapter Operations**

For a list of operations associated with this Web service, see [Table 29](#).

Table 29. ConfiguratorUserLangSiebelAdapter Operations

Name	Description
process	Returns the User, Responsibility Id, and Language from the EBS application. These values are needed to launch Siebel Configurator and customize a product.

**Request Message Description: process**

For a description of this request message, see [Table 30](#).

Table 30. Request Message Description: process

Node	Description	Type
ConfiguratorUserLangSiebelAdapter RequestMessage:payload	Optional	Hierarchy
CustomHeaderContext	Optional	Hierarchy

**Response Message Description: process**

For a description of this response message, see [Table 31](#).

Table 31. Response Message Description: process

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
MConfiguratorUserLangSiebelAdapterResponseMessage:payload	Optional	Hierarchy
XMLHierarchyOutput	Optional	Hierarchy
faultactor	Optional	String
faultcode	Optional	String
faultstring	Optional	String
MatchContactFaultMsg:payload	Optional	Integration Object

**ConfiguratorUserLangSiebelAdapter Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 32](#).

Table 32. ConfiguratorUserLangSiebelAdapter Service Object

Siebel Repository Name	Boundary Object Type	Class
Oracle Configurator Load	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 33](#).

Table 33. ConfiguratorUserLangSiebelAdapter Data Object

Siebel Repository Name	External Name
ConfiguratorUserLangSiebelAdapterProcessRequest	ConfiguratorUserLangSiebelAdapterProcessRequest
ConfiguratorUserLangSiebelAdapterProcessResponse	ConfiguratorUserLangSiebelAdapterProcessResponse

**Methods**

For a description of the methods for this Web service, see [Table 34](#).

Table 34. ConfiguratorUserLangSiebelAdapter Methods

Operation	Method
process	process

## CreditCheckSalesOrderSiebelReqABCImpl

Use this Web service to check if the Purchase Order method is a valid payment type.

### CreditCheckSalesOrderSiebelReqABCImpl Operations

For a list of operations associated with this Web service, see [Table 35](#).

Table 35. CreditCheckSalesOrderSiebelReqABCImpl Operations

Name	Description
CreditCheck	Checks for the method of payment.

#### Request Message Description: CreditCheck

For a description of this request message, see [Table 36](#).

Table 36. Request Message Description: CreditCheck

Node	Description	Type
CreditCheckSalesOrderReqMsg: ListOfSWIOrderIOReq	Optional	Hierarchy
CustomHeaderContext	Optional	Hierarchy

#### Response Message Description: CreditCheck

For a description of this response message, see [Table 37](#).

Table 37. Response Message Description: CreditCheck

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
CreditCheckSalesOrderRespMsg: ListOfSWIOrderIOResp	Optional	Hierarchy
XMLHierarchyOutput	Optional	Hierarchy
faultactor	Optional	String
faultcode	Optional	String

Table 37. Response Message Description: CreditCheck

Node	Description	Type
faultstring	Optional	String
SiebelFaultMsg: Fault	Optional	Integration Object

## CreditCheckSalesOrderSiebelReqABCImpl Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 38](#).

Table 38. CreditCheckSalesOrderSiebelReqABCImpl Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendCreditCheck	Workflow	Not applicable

### Data Object (Integration Object)

For a description of data objects for this Web service, see [Table 39](#).

Table 39. CreditCheckSalesOrderSiebelReqABCImpl Data Object

Siebel Repository Name	External Name
SWIOrderIO	SWIOrderIO
Fault	Fault

### Methods

For a description of the methods for this Web service, see [Table 40](#).

Table 40. CreditCheckSalesOrderSiebelReqABCImpl Methods

Operation	Method
CreditCheck	CreditCheck

## PaymentAuthorizationSalesOrderSiebelReqABCImpl

Use this Web service to check if this payment record is valid for the customer

## PaymentAuthorizationSalesOrderSiebelReqABCImpl Operations

For a list of operations associated with this Web service, see [Table 41](#).

Table 41. PaymentAuthorizationSalesOrderSiebelReqABCImpl Operations

Name	Description
PaymentAuthorization	Checks for the validity of the payment record.

### Request Message Description: PaymentAuthorization

For a description of this request message, see [Table 42](#).

Table 42. Request Message Description: PaymentAuthorization

Node	Description	Type
PaymentAuthorizationSalesOrderReqMsg:ListOfSWIOrderIO	Optional	Hierarchy
CustomHeaderContext	Optional	Hierarchy

### Response Message Description: PaymentAuthorization

For a description of this response message, see [Table 43](#).

Table 43. Response Message Description: PaymentAuthorization

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
PaymentAuthorizationSalesOrderRespMsg:ListOfSWIOrderIO	Optional	Hierarchy
XMLHierarchyOutput	Optional	Hierarchy
faultactor	Optional	String
faultcode	Optional	String
faultstring	Optional	String
SiebelFaultMsg: Fault	Optional	Integration Object

## PaymentAuthorizationSalesOrderSiebelReqABCImpl Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 44](#).

Table 44. PaymentAuthorizationSalesOrderSiebelReqABCImpl Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendPaymentAuthorization	Workflow	Not applicable

### Data Object (Integration Object)

For a description of data objects for this Web service, see [Table 45](#).

Table 45. PaymentAuthorizationSalesOrderSiebelReqABCImpl Data Object

Siebel Repository Name	External Name
SWIOrderIO	SWIOrderIO
Fault	Fault

### Methods

For a description of the methods for this Web service, see [Table 46](#).

Table 46. PaymentAuthorizationSalesOrderSiebelReqABCImpl Methods

Operation	Method
PaymentAuthorization	PaymentAuthorization

## SWIOrderUpsert

Use this Web service to perform following basic operations on a sales order:

- Back up an order.
- Update or insert an order (upsert).
- Cascade down an update.
- Trigger an auto asset.

### SWIOrderUpsert Operations

For a list of operations associated with this Web service, see [Table 47](#).

Table 47. SWIOrderUpsert Operations

Name	Description
SWIOrderUpsert	Inserts updates of order details.

**Request Message Description: SWIOrderUpsert**

For a description of this request message, see [Table 48](#).

Table 48. Request Message Description: SWIOrderUpsert

Node	Description	Type
SWIOrderIO	Required	Integration Object
Auto-Asset Flag	Optional	String
Backup Order Flag	Optional	String
Cascade Down Flag	Optional	String
UTCCanonical	Optional	String

**Response Message Description: SWIOrderUpsert**

For a description of this response message, see [Table 49](#).

Table 49. Response Message Description: SWIOrderUpsert

Node	Description	Type
SWIOrder IO	Required. An instance of the integration object SWIOrder.	Integration Object.

**SWIOrderUpsert Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 50](#).

Table 50. SWIOrderUpsert Service Object

Siebel Repository Name	Boundary Object Type	Class
SWIOrderUpsert	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 51](#).

Table 51. SWIOrderUpsert Data Object

Siebel Repository Name	External Name
SWIOrderIO	PDS Simplified Order

# SWIProductAttributeImport

Use this Web service to perform basic operations on attributes.

## SWIProductAttributeImport Operations

For a list of operations associated with this Web service, see [Table 52](#).

Table 52. SWIProductAttributeImport Operations

Name	Description
SWIAttributeImportUpsert	Creates a new or updates an existing attribute.

## Request Message Description: SWIProductAttributeImport

For a description of this request message, see [Table 53](#).

Table 53. Request Message Description: SWIProductAttributeImport

Node	Description	Type
SWIAttributeIntegrationIO	Required. An instance of the integration object SWIAttributeIntegration	Integration Object
SyncChild	Upsert operation behaves as Synchronize if SyncChild flag is set to Y.  <b>NOTE:</b> The default value of this flag is Y.	String

## Response Message Description: SWIProductAttributeImport

For a description of this response message, see [Table 54](#).

Table 54. Response Message Description: SWIProductAttributeImport

Node	Description	Type
SWIAttributeIntegrationIO	Returns an instance of the integration object SWIAttributeIntegration.  <b>NOTE:</b> Returns only those fields specified in the status key of Integration components that are part of SWI Admin ISS Attribute Definition integration object.	Integration Object.
Error Message	Error message (if any).	String

## SWIProductAttributeImport Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 55](#).

Table 55. SWIProductAttributeImport Service Object

Siebel Repository Name	Boundary Object Type	Class
SWI Attribute Import	Business Service	CSSCMUProdWebSvc

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 56](#).

Table 56. SWIProductAttributeImport Data Object

Siebel Repository Name	External Name
SWIAttributeIntegrationIO	SWI Attribute Integration
SWI Admin ISS Attribute Definition	SWI Admin ISS Attribute Definition

**Methods**

For a description of the methods for this Web service, see [Table 57](#).

Table 57. SWIProductAttributeImport Methods

Operation	Method
SWIAttributeImportUpsert	Insert or Update

# SWIProductClassImport

Use this Web service to perform basic operations on Product Class.

**SWIProductClassImport Operations**

For a list of operations associated with this Web service, see [Table 58](#).

Table 58. SWIProductClassImport Operations

Name	Description
SWIClassImportUpsert	Creates a new or updates an existing product class.

**Request Message Description: SWIClassImportUpsert**

For a description of this request message, see [Table 59](#).

Table 59. Request Message Description: SWIClassImportUpsert

Node	Description	Type
SWIProductClassIntegrationIO	Required. An instance of the integration object SWIProductClassIntegration.	Integration Object
SyncChild	Upsert operation behaves as Synchronize if SyncChild flag is set to Y.  <b>NOTE:</b> The default value of this flag is Y.	String

**Response Message Description: SWIClassImportUpsert**

For a description of this response message, see [Table 60](#).

Table 60. Response Message Description: SWIClassImportUpsert

Node	Description	Type
SWIProductClassIntegrationIO	Required. An instance of the integration object SWIProductClassIntegration.  <b>NOTE:</b> Returns only those fields specified in the status key of Integration components that are part of SWI Admin ISS Class VOD Definition integration object.	Integration Object.

**SWIClassImportUpsert Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 61](#).

Table 61. SSWIClassImportUpsert Service Object

Siebel Repository Name	Boundary Object Type	Class
SWI Product Class Import	Business Service	CSSCMUProdWebSvc

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 62](#).

Table 62. SWIClassImportUpsert Data Object

Siebel Repository Name	External Name
SWIProductClassIntegrationIO	SWI Class Integration
SWI Admin ISS Class VOD Definition	SWI Admin ISS Class VOD Definition

**Methods**

For a description of the methods for this Web service, see [Table 63](#).

Table 63. SWIClassImportUpsert Methods

Operation	Method
SWIClassImportUpsert	Insert or Update

# SWIProductImport

Use this Web service to perform basic operations on Products

**SWIProductImport Operations**

For a list of operations associated with this Web service, see [Table 64](#).

Table 64. SWIProductImport Operations

Name	Description
SWIProductImportUpsert	Creates a new or updates an existing product.

**Request Message Description: SWIProductImportUpsert**

For a description of this request message, see [Table 65](#).

Table 65. Request Message Description: SWIProductImportUpsert

Node	Description	Type
SWIProductIntegrationIO	Required. An instance of the integration object SWIProductIntegration.	Integration Object
SyncChild	Upsert operation behaves as Synchronize if SyncChild flag is set to Y.  <b>NOTE:</b> The default value of this flag is Y.	String

**Response Message Description: SWIProductImportUpsert**

For a description of this response message, see [Table 66](#).

Table 66. Response Message Description: SWIProductImportUpsert

Node	Description	Type
SWIProductIntegrationIO	Returns an instance of SWIProductIntegration.  <b>NOTE:</b> Returns only those fields specified in the status key of Integration components that are part of SWI Admin ISS Product Definition integration object.	Integration Object
ErrorMessage	Error Message (if any).	String

**SWIProductImport Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 67](#).

Table 67. SWIProductImport Service Object

Siebel Repository Name	Boundary Object Type	Class
SWIProductImport	Business Service	CSSCMUProdWebSvc

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 68](#).

Table 68. SWIProductImport Data Object

Siebel Repository Name	External Name
SWIProductIntegrationIO	SWIProductIntegrationIO
SWI Admin ISS Product Definition	SWI Admin ISS Product Definition

**Methods**

For a description of the methods for this Web service, see [Table 69](#).

Table 69. SWIProductImport Methods

Operation	Method
SWIProductImportUpsert	Insert or Update

# SWIPromotionIntegration

Use this Web service to perform basic operations on promotions.

## SWIPromotionIntegration Operations

For a list of operations associated with this Web service, see [Table 70](#).

Table 70. SWIPromotionIntegration Operations

Name	Description
SWIPromotionUpsert	Creates a new promotion or updates an existing promotion.

### Request Message Description: SWIPromotionUpsert

For a description of this request message, see [Table 71](#).

Table 71. Request Message Description: SWIPromotionUpsert

Node	Description	Type
SWIPromotionIntegrationIO	Required. An instance of the integration object SWIPromotionIntegration.	Integration Object
SyncChild	Upsert operation behaves as Synchronize if SyncChild flag is set to Y.  <b>NOTE:</b> The default value of this flag is Y.	String

**NOTE:** The <ComponentPath/> XML tag supports the following two formats:

Root Product||Relationship Name::Class/Product Name||Domain product Name::Domain Product Name

OR

Root Product||::Class/Product Name::Domain type||Domain product Name::Product

**Response Message Description: SWIPromotionUpsert**

For a description of this response message, see [Table 72](#).

Table 72. Response Message Description: SWIPromotionUpsert

Node	Description	Type
SWIPromotionIntegrationIO	Returns an instance of SWIPromotionIntegrationIO.  <b>NOTE:</b> Returns only those fields specified in the status key of Integration components that are part of SWI ISS Promotion integration object.	Integration Object
ErrorMessage	Error Message (if any).	String

**SWIPromotionIntegration Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

**Service Object (Business Service or Workflow)**

For a description of the service objects for this Web service, see [Table 73](#).

Table 73. SWIPromotionIntegration Service Object

Siebel Repository Name	Boundary Object Type	Class
SWIPromotionImport	Business Service	CSSSWIPromWebSvc

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 74](#).

Table 74. SWIPromotionIntegration Data Object

Siebel Repository Name	External Name
SWIPromotionIntegrationIO	SWI Promotion Integration
SWIISSPromotion	SWI ISS Promotion

**Methods**

For a description of the methods for this Web service, see [Table 75](#).

Table 75. SWIPromotionIntegration Methods

Operation	Method
SWIPromotionUpsert	Insert or Update

# SWIQuoteUpsert

Use this Web service to upsert quote details

## SWIQuoteUpsert Operations

For a list of operations associated with this Web service, see [Table 76](#).

Table 76. SWIQuoteUpsert Operations

Name	Description
SWIQuoteUpsert	Inserts or updates quote details.

### Request Message Description: SWIQuoteUpsert

For a description of this request message, see [Table 77](#).

Table 77. Request Message Description: SWIQuoteUpsert

Node	Description	Type
StatusObject	Optional	String
SiebelMessage	Required	Integration Object

### Response Message Description: SWIQuoteUpsert

For a description of this response message, see [Table 78](#).

Table 78. Response Message Description: SWIQuoteUpsert

Node	Description	Type
SiebelMessage	Required	Integration Object

## SWIQuoteUpsert Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 79](#).

Table 79. SWIQuoteUpsert Service Object

Siebel Repository Name	Boundary Object Type	Class
SWIQuoteupsert	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 80](#).

Table 80. SWIQuoteUpsert Data Object

Siebel Repository Name	External Name
SWIQuoteIO	PDS Simplified Order

# SWISubmitOrder

Use this Web service to submit an order in the queue.

**SWISubmitOrder Operations**

For a list of operations associated with this Web service, see [Table 81](#).

Table 81. SWISubmitOrder Operations

Name	Description
process	Submits the order request into the Oracle Communications Billing and Revenue Management Advanced Queue (AQ) facility.

**Request Message Description: process**

For a description of this request message, see [Table 82](#).

Table 82. Request Message Description: process

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
SWISubmitOrderReqMsg:ListOfSWIOrderIO	Optional	Integration Object
siebel_transport_param:JMSPriority	Optional. Sets the priority of the order processing in the JMS queue.	String

**Response Message Description: process**

There is no response message for this operation.

**SWISubmitOrder Application Interface**

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

A new parameter was added to the SISOMBillingSubmitOrderWebService workflow to address the UTC and Canonical changes. For more information see [“SISOMBillingSubmitOrderWebService Workflow” on page 101](#).

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 83](#).

Table 83. SWISubmitOrder Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISubmitOrder	Business Service	CSSWSOutboundDispatcher
SISOMBillingSubmitOrderWeb Service	Workflow	Not applicable

### Data Object (Integration Object)

For a description of data objects for this Web service, see [Table 84](#).

Table 84. SWISubmitOrder Data Object

Siebel Repository Name	External Name
SWIOrderIO	PDS Simplified Order

### Methods

For a description of the methods for this Web service, see [Table 85](#).

Table 85. SWISubmitOrder Methods

Operation	Method
process	process

## SWISubmitOrder\_o2c

Use this Web service to submit an order for the Order to Cash Process Integration Pack (O2C PIP) into the queue.

## SWISubmitOrder\_o2c Operations

For a list of operations associated with this Web service, see [Table 86](#).

Table 86. SWISubmitOrder\_o2c Operations

Name	Description
process	Submits an order request into the Oracle Communications Billing and Revenue Management Advanced Queue (AQ) facility.

### Request Message Description: process

For a description of this request message, see [Table 87](#).

Table 87. Request Message Description: process

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
SWISubmitOrder_o2cReqMsg:ListOfSWIOrderIO	Optional	Integration Object
siebel_transport_param:JMSPriority	Optional. Sets the priority of the order processing in the JMS queue.	String

### Response Message Description: process

There is no response message with this operation.

## SWISubmitOrder\_o2c Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 88](#).

Table 88. SWISubmitOrder\_o2c Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendOrder	Workflow	Not applicable

**Data Object (Integration Object)**

For a description of data objects for this Web service, see [Table 89](#).

Table 89. SWISubmitOrder\_o2c Data Object

Siebel Repository Name	External Name
SWIOrderIO	PDS Simplified Order

**Methods**

For a description of the methods for this Web service, see [Table 90](#).

Table 90. SWISubmitOrder\_o2c Methods

Operation	Method
process	process

# SWISubmitQuote\_o2c

Use this Web service to submit a quote for the Order to Cash Process Integration Pack (O2C PIP) into the queue.

**SWISubmitQuote\_o2c Operations**

For a list of operations associated with this Web service, see [Table 91](#).

Table 91. SWISubmitQuote\_o2c Operations

Name	Description
process	Submits a quote request into the Oracle Communications Billing and Revenue Management Advanced Queue (AQ) facility.

**Request Message Description: process**

For a description of this request message, see [Table 92](#).

Table 92. Request Message Description: process

Node	Description	Type
CustomHeaderContext	Optional	Hierarchy
SWISubmitQuote_o2cReqMsg:ListOfSWIQuoteIO	Optional	Integration Object

**Response Message Description: process**

There is no response message with this operation.

## SWISubmitQuote\_o2c Application Interface

This topic describes the application objects called by this Web service. For more information on application implementation, refer to your application development documentation on Oracle Technology Network.

### Service Object (Business Service or Workflow)

For a description of the service objects for this Web service, see [Table 93](#).

Table 93. SWISubmitQuote\_o2c Service Object

Siebel Repository Name	Boundary Object Type	Class
SWISendQuote	Workflow	Not applicable

### Data Object (Integration Object)

For a description of data objects for this Web service, see [Table 94](#).

Table 94. SWISubmitQuote\_o2c Data Object

Siebel Repository Name	External Name
SWIQuoteIO	PDS Simplified Order

### Methods

For a description of the methods for this Web service, see [Table 95](#).

Table 95. SWISubmitQuote\_o2c Methods

Operation	Method
process	process

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