Siebel

Communications Guide

July 2020



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Communications Guide

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The business names used in this documentation are fictitious, and are not intended to identify any real companies currently or previously in existence.

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Preface

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

Using Oracle Applications

To find guides for Oracle Applications, go to the Oracle Help Center at *http://docs.oracle.com/*.

Documentation Accessibility

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

Contacting Oracle

Access to Oracle Support

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

Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send an email to: *oracle_fusion_applications_help_ww_grp@oracle.com*.

1 What's New in This Release

What's New in Siebel Communications Guide, Siebel CRM 20.7 Update

The following information lists the changes in this revision of the documentation to support this release of the software.

Topic	Description
Activating the Oracle Application Integration Architecture-Related Workflows	Modified topic. Updated steps to reflect the current behavior of workflows.
Changing the Default Billing Type to Subscription	Modified topic. Updated steps to reflect the current behavior of workflows.
Configuring Oracle Configurator	Modified topic. Updated steps to reflect the current behavior of workflows.
About Following Up with the Customer for a Fraud Alert	Modified topic. Updated the content to reflect the changes to workflows.

What's New in Siebel Communications Guide, Siebel CRM 20.1 Update

No new features have been added to this guide for this release. This guide has been updated to reflect only product name changes.

What's New in Siebel Communications Guide, Siebel CRM 19.1 Update

No new features have been added to this guide for this release. This guide has been updated to reflect only product name changes.

2 Overview of Siebel Communications

Overview of Siebel Communications

This chapter includes the following topics:

- *About Siebel Communications*
- *Key Features of Siebel Communications*
- *Product Modules and Options for Siebel Communications*
- *Business Functions of Screens in Siebel Communications*
- *About Prebuilt Integration with Siebel Communications*
- *Configuring Communications, Order-to-Cash, and Master Data Management Integration*

About Siebel Communications

Oracle's Siebel Communications allows media and communications service providers to manage, synchronize, and coordinate their customers' Internet, call center, field organization, and distribution channel requirements. It is designed to meet the needs of media service and content providers, and wireline, mobile, and Internet service providers. It serves a wide range of customers, from residential consumers to global corporations.

Siebel Communications allows user access to customer data residing in other applications. Using Oracle's Siebel Enterprise Application Integration (Siebel EAI) functionality, it integrates with billing, operations support systems (OSSs), and enterprise resource planning (ERP) applications.

Oracle's Siebel Business Applications are designed to work together to provide an integrated Customer Relationship Management (CRM) solution. Siebel Communications allows media and communications companies to implement Siebel modules that include sales, service, and marketing functionality. These modules include Oracle's Siebel Sales, Oracle's Siebel Service, Oracle's Siebel Call Center, Oracle's Siebel Field Service, and Oracle's Siebel Customer Order Management.

Oracle's Siebel Anywhere product allows the Siebel system administrator to apply upgrades to Developer Web Clients, Mobile Web Clients, and Siebel Servers.

Key Features of Siebel Communications

The following describes how Siebel Communications and Oracle's Siebel Media provide solutions for key business issues.

Business Issue	Siebel Communications and Siebel Media Solutions
Account and Premises management	• Management of accounts through multilevel account hierarchies that are based on complex account relationships • Independent management of service accounts and billing accounts • Tracking of physical facilities and network delivery points through premises records • Tracking of meters at service points • Management of account and customer information through profiles
Agreement management	• Automated production of agreements from accepted quotes • Coordination of pricing information • Assigning of standard terms, conditions, and features • Tracking to make sure that agreements and service entitlements are fulfilled
Audit trail	• Creation of a history of all the changes that have been made to various kinds of information • Records show who has accessed an item, what operation has been performed, when it was performed, and how the value was changed • Useful for maintaining security, examining the history of a particular record, and documenting modifications for future analysis and record-keeping
Billing management	• Integration with back-office billing applications • Query and display of billing information • Management of payment information, payment plans, bill adjustments, and bill profiles
Call center optimization	• Single desktop to manage multiple types of customer interactions • Integrated Web and Interactive Voice Response (IVR) self-service functionality
Credit management	• Integration with a back-office credit application • Management of credit alerts • Notification of customers who are delinquent in payments
Customer acquisition	• Analytical tools for segmenting prospects and developing targeted campaigns • Campaign management tools for developing and executing multichannel campaigns • Prebuilt performance analysis tools • Call scripting (providing text that uses proactive selling and retention techniques for employees to use when speaking with customers) • Territory assignment, lead scoring, and routing
Customer and partner applications	• Oracle's Siebel Partner Relationship Management, which allows your company to turn channel partners into an extended, virtual sales and service organization through the Internet • Oracle's Siebel Self Service, which allows your customers to create and track their own trouble tickets and service requests, and to search for answers to frequently asked questions (FAQs), through the Internet • Oracle's Siebel eSales, which allows your customers to use the Internet to browse through your company's products and services, and to configure and purchase them
Customer retention	• Customer profile that is shared throughout the enterprise

Business Issue	Siebel Communications and Siebel Media Solutions
	• Profile analysis to predict customer churn • Generation of win-back actions • Sales tools that increase sales effectiveness and maximize time spent building relationships • Tools for marketing analysis, campaign development, and execution
Equipment and infrastructure	• Management of physical assets available at a customer site • Tracking of equipment sales to accounts • Management of meters and assets
Fraud management	• Integration with a back-office fraud management application • Management of fraud alerts • Definition of relevant thresholds for customer fraud profiles • Classification of customer accounts to indicate the likelihood of fraud • Management of customer accounts that are either late in settlement or delinquent
Order configuration and management	• Oracle's Siebel Configurator, which automates the generation of quotes and sales orders • Tracking of relationships between sales, sales orders, and work orders • Definition of process rules and automatic escalation of open sales orders • Use of product classes and attributes, and product bundles in generating sales orders • Provisioning of sales orders through work orders
Pricing management	• A set of tools for defining pricing adjustments and the conditions under which they are applied • An engine that evaluates condition statements and determines which pricing adjustments to apply • A testing area that allows assessment of the pricing adjustments • Integration with end-user interfaces such as Quotes, Orders, Oracle's Siebel eSales, Oracle's Siebel Partner Relationship Management, and Oracle's Siebel Configurator
Oracle's Siebel Marketing	• Analysis of customer information and measurement of campaign results with eIntelligence • Creation and execution of targeted marketing campaigns • Internet marketing with Siebel Consumer Marketing: Integrated email campaigns, customized Web offers, personalized Web pages, Internet newsletters, and Internet surveys
Third-party and legacy integration	• Prebuilt Web services that provide interfaces to leading Operating System Software (OSS) and Enterprise Resource Planning (ERP) applications • Integration mapping tools for cross-application process integration • Oracle's Siebel Enterprise Integration Manager (EIM), which allows bidirectional data exchange and synchronization • Performing credit verification and address validation • Maintenance of billing accounts through an external billing application
Trouble ticket and service request management	• A means of logging, assigning, managing, and resolving customers' problems, including network problems or outages affecting customers • Online solutions search capability • Proactive customer notifications through email, pager, fax, and Internet

Business Issue	Siebel Communications and Siebel Media Solutions
	• Automatic escalation of overdue trouble tickets and service requests • Integration with external outage management applications
Upselling and cross-selling	• Scripting engine that identifies upsell and cross-sell opportunities with every customer contact • Product configuration that prompts the salesperson to propose high-margin services • Integrated asset management that provides information about configuration at each service location
Usage, billing, and service detail	• Access to customer usage and service information • Summary customer data for account analysis

Product Modules and Options for Siebel Communications

Many Siebel Business Applications modules can be purchased and used with Siebel Communications and Siebel Media. In addition, optional modules specific to Siebel Communications and Siebel Media can be purchased to provide enhanced functionality for various business processes. For information about the optional modules that can be used with Siebel Communications and Siebel Media, contact your Siebel sales representative.

Note: This guide documents Siebel Communications with the optional modules installed. In addition, the Sample database includes data for optional modules. If your installation does not include some of these modules, then your software interface differs from that described in some topics of this guide.

The exact configuration of Siebel Communications and Siebel Media screens and views depends on your company's configuration of the application. For introductory information about using the Siebel Communications and Siebel Media interfaces, see *Siebel Fundamentals Guide* .

Note: The Siebel Bookshelf is available on Oracle Technology Network (http://www.oracle.com/technetwork/indexes/documentation/index.html) and Oracle Software Delivery Cloud. It might also be installed locally on your intranet or on a network location.

Business Functions of Screens in Siebel Communications

The Siebel Communications and Siebel Media interfaces include procedure-specific screens. Some screens are used exclusively by administrators. The following lists the most frequently used screen and views forSiebel Communications and Siebel Media. It also lists the functions of the views in those screens.

Note: The procedures in this guide assume that you do not use the Tree navigation control option to access screens and views. However, you can choose to use the Tree navigation control if required. For more information about setting navigation options, see *Siebel Fundamentals Guide* .

Screen	Functions	For More Information
Accounts	Create, view, and update accounts. Set up and maintain account hierarchies. Define and maintain account profile information. Query customer bills. Record bill payments, repayment plans, and adjustments.	See *Accounts in Siebel Communications*, *Profiles in Siebel Communications*, and *Billing in Siebel Communications*
Activities	Track personal activities and view activities for other team members. Track the progress of accounts, trouble tickets, service requests, interactions with contacts, and opportunities.	See *Siebel Applications Administration Guide*
Agreements	Create, generate, modify, approve, and track agreements.	See *Agreements and Entitlements in Siebel Communications*
Assets	Manage information about products sold to accounts.	See *Siebel Field Service Guide*
Audit Trail	Creates a history of the changes that have been made in and Oracle'sSiebel Communications and Oracle's Siebel Media.	See *Siebel Applications Administration Guide*
Briefings	Gather and format information from a number of different sources, both inside and outside your company, including the World Wide Web.	See *Siebel Briefings Administration Guide*
Calendar	Create and display activities (including to-do activities) and share calendar information with co-workers.	See *Siebel Fundamentals*
Campaigns	Manage outbound communications with prospects targeted for a particular marketing effort.	See *Siebel Applications Administration Guide*
Contacts	Record and track business and personal contact information associated with an account, an opportunity, a trouble ticket, or service request.	See *Contacts in Siebel Communications*
Credit Management	Manage and monitor customer credit issues. Share data with third-party credit management applications.	See *Credit Management in Siebel Communications*
Entitlements	Associate entitlements with accounts, contacts, and products. Determine a customer's eligibility for service under its entitlements.	See *Agreements and Entitlements in Siebel Communications*
Expense Reports	Manage expense-report information for your own expenses, or your team's expenses.	See *Siebel Applications Administration Guide*

Screen	Functions	For More Information
Forecasts	Create business forecasts that are based on opportunities or products.	See *Siebel Applications Administration Guide*
Fraud Management	Manage and monitor customer fraud issues. Share data with third-party fraud management applications.	See *Fraud Management in Siebel Communications*
Literature	Display company- and industry-related literature cataloged by the Siebel administrator.	See *Siebel Applications Administration Guide*
Opportunities	Manage sales opportunities for business and residential customers.	See *Opportunities in Siebel Communications*
Orders	Create sales orders and track their status. Generate order summaries.	See *Siebel Order Management Guide* and *Siebel Order Management Guide Addendum for Communications*
Premises	Create and maintain premises. Track service points, customer premises equipment, and meters associated with a premises.	See *Premises in Siebel Communications*
Products	Displays products, product lines, product features, and price lists.	See *Siebel Order Management Guide* and *Siebel Order Management Guide Addendum for Communications*
Quality	Manage information about adverse events or reactions related to products.	See *Siebel Applications Administration Guide*
Quotes	Create, view, and update quotes. Update opportunities and configure solutions for quotes.	See *Siebel Order Management Guide* and *Siebel Order Management Guide Addendum for Communications*
Service Requests	Create, display, and update customer requests for information about or assistance with products or services.	See *Service Requests and Trouble Tickets in Siebel Communications*
SmartScripts	Define the application workflow for an interactive situation in a script. These interactive situations can include inbound communications (such as customer service) and outbound contacts (such as telemarketing).	See *Siebel SmartScript Administration Guide*
Solutions	Search, organize, and add to a knowledge base of answers to service requests and trouble tickets.	See *Siebel Field Service Guide*
Trouble Tickets	Create, display, and update customer requests for information about or assistance with products or services.	See *Service Requests and Trouble Tickets in Siebel Communications*

Screen	Functions	For More Information
Work Orders	Manage the work components associated with activating or turning off service for a customer.	See *Work Orders in Siebel Communications*

About Prebuilt Integration with Siebel Communications

Oracle® Application Integration Architecture is a set of products that enables you to set up and orchestrate cross-application business processes so that multiple applications can work together. Oracle Application Integration Architecture runs on Oracle® Fusion Middleware.

Oracle® Communications Process Integration Packs (PIPs) are prebuilt packaged process integrations between Siebel Communications and Oracle® Communications Billing and Revenue Management, and are based on Oracle Application Integration Architecture.

Administrators can implement the following PIPs to integrate Siebel Communications with an application for managing billing and revenue, such as Oracle Communications Billing and Revenue Management:

- *Oracle Communications Integration Pack for Order to Bill*
- *Communications Agent Assisted Billing Care*

The following topics provide additional information about integrating Siebel Communications with an application for managing billing and revenue:

- *About Passing Customer Orders to Oracle Billing Application*
- *About Service Bundles*

For more information about the PIPs described in this topic andother PIPs, visit the Industry-Specific PIPs Web page at

https://docs.oracle.com/en/industries/communications/application-integration-architecture-comms/index.html

Additionally, the following Oracle Application Integration Architecture for Communications guides, which you can access on the Oracle Technology Network, are available for these PIPs:

- *Process Integration for Order Management Implementation Guide*
- *Process Integration for Customer Management Implementation Guide*
- *Process Integration for Product Management Implementation Guide*
- *Process Integration for Billing Management Implementation Guide*

Note: To allow these integrations, your company must purchase the CME Billing Management option in Siebel Communications (which exposes billing and revenue management views), required Oracle PIPs, and Oracle Application Integration Architecture licenses.

Oracle Communications Integration Pack for Order to Bill

The Oracle Communications Integration Pack for Order to Bill PIP automates the order management process between Siebel Customer Relationship Management (CRM) applications from Oracle and Oracle Communications Billing

and Revenue Management, including automatic product and price synchronization, customer synchronization, and integrated order processing. This PIP offers the following key features:

- Product and price synchronization between Oracle Communications Billing and Revenue Management and Siebel CRM.
- Customer synchronization between Siebel CRM and Oracle Communications Billing and Revenue Management. This synchronization includes creating new customers and updating existing customers.
- Integrated order management. This integration includes processing sales orders, initiating billing on fulfilled services, creating CRM assets, and updating CRM assets.

Communications Agent Assisted Billing Care

The Communications Agent Assisted Billing Care PIP allows integrated customer management and integrated billing management. This PIP consists of the following process integrations:

- **Process Integration for Customer Management.** This process integration allows the synchronization of customer information between Siebel CRM and Oracle Communications Billing and Revenue Management. The Process Integration for Customer Management provides the following integration flows:
  - **Create Account.** This integration flow interfaces customers to Oracle Communications Billing and Revenue Management. It runs during the Order Management processing flow.
  - **Update Customer Account.** This integration flow updates accounts from Siebel CRM to Oracle Communications Billing and Revenue Management.
- **Integrated Billing Management.** This process integration integrates the billing management process between Siebel CRM and Oracle Communications Billing and Revenue Management. The allows Siebel CRM to be used as the single interface to access all customer-related information, including data that is mastered and maintained within Oracle Communications Billing and Revenue Management. It includes support for the following key processes to be performed from Siebel CRM:
  - View balance groups and balance details in real time.
  - Display unbilled usage information in real time.
  - View invoice details.
  - View payment and adjustment history.
  - Capture payments for an invoice and send them to Oracle Communications Billing and Revenue Management for processing.
  - Capture new adjustment requests and send them to Oracle Communications Billing and Revenue Management for processing.

About Passing Customer Orders to Oracle Billing Application

When you create a customer order in Siebel Communications, the order is successfully passed to the Oracle Communications Billing and Revenue Management application if all of the following conditions are satisfied:

- For the account in the order header, the following conditions are satisfied:
  - The Account Type field must have a value of Business or Residential.
  - The Account Class field must have a value Customer, Service, or Billing.

- The Primary Contact field must contain data.
- An account address must be designated as the primary address.

- The price list in the order header must be the same price list that the Oracle Communications Billing and Revenue Management application uses.
- The following fields in the order lines must contain data:
  - Service Id (if the order line relates to a service bundle)
  - Service Account
  - Billing Account
  - Billing Profile

> **Note:** A billing profile is successfully passed to the billing application if the billing profile satisfies some conditions. For more information about these conditions, see *About Billing Profiles in Siebel Communications*.

About Service Bundles

This topic describes service bundles and their behaviors in Siebel Communications.

Description of Service Bundles

A *service bundle* is a group of related services that you sell as a package. Service bundles simplify service selection and configuration. A single billing instance in the Oracle Communications Billing and Revenue Management application is constructed for a service bundle. A service bundle is similar to a product bundle. For more information about product bundles, see *Siebel Product Administration Guide* .

You can create service bundles. To create a service bundle, select Service Bundle in the Billing Type field for the bundle. Other examples of values for the Billing Type field include: Discount, Event, Item, and Subscription. A service bundle can include the following content:

- Simple products. If a product is available in one form and does not include other products that you can configure for it, then the product is a simple product. Simple products have the billing service type of the parent service bundle.
- Customizable products. If a product can include other product components that you can configure for it, then the product is a customizable product (or complex product). A customizable product can include simple products, other customizable products, service bundles, and non-billing products. Customizable products have the billing service type of the parent service bundle.
- Nested service bundles. If a parent service bundle contains a child service bundle, then the child service bundle is a nested service bundle. Child service bundles can have a different billing service type from the parent service bundle.
- Non-billing products. If a product is not billed to the customer, then the product is a non-billing product. Non-billing products do not have a billing service type and can be part of an installed asset. These products exist only in Oracle's Siebel Customer Relationship Management (CRM) application and are not passed to the Oracle Communications Billing and Revenue Management application.

To see the products in a bundle, navigate to Administration - Product screen, Products view, select the product bundle, and click the Bundle Product view tab. A service bundle for mobile phone service might include the following items:

- Rate plans (for example, Main Line 1, Main Line 2, and an add-on line)
- Activation fees
- Usage fees
- Features (for example, call forwarding)
- Discounts (for example, 50% off the first 3 months and a free minutes discount)
- SMS (Short Message Service) for text messaging. This service might include rate plans (for example, SMS Basic and SMS Unlimited)

In this example, the activation fees and usage fees are simple products, the rate plans, features, and discounts are customizable products, and the SMS is a nested service bundle.

Behavior of Service Bundles

The Billing Service Type field for a service bundle is populated with data when the products in the Oracle Communications Billing and Revenue Management application are synchronized with the products in the Siebel application. Examples of values for the Billing Service Type field follow:

- /service/telco/gsm/telephony
- /service/telco/gsm/sms
- /service/telephony
- /service/ip
- /account

To see the Billing Type field and the Billing Service Type field for a service bundle or a product in that bundle, navigate to the Administration - Product screen, Products view, and select the record for a service bundle or a product in that bundle. Expand the form in the Detail view. The Billing Type field and the Billing Service Type field appear in the Logistics section of the form. After products are synchronized, do not change the values in these fields.

Although Siebel Communications provides no validation rules, all product components under a service bundle must have the billing account, service account, and billing profile of the root product in that service bundle. The billing account, service account, and billing profile fields are associated with the line items in an order and are populated when a user creates an order.

If you modify, disconnect, suspend, resume, or transfer a service item that relates to a parent service bundle, or if you upgrade or downgrade a promotion for a service item that relates to a parent service bundle, then multiple service charges can be automatically created if the parent service bundle includes child service bundles to which service charges apply.

If a service bundle status is updated, then the statuses of the product components in a service bundle are updated. If a customizable product that contains a service bundle is updated, then the status of the service bundle is updated. The SIS OM Order Line Item Update Main workflow updates the status field of order line items, but administrators can configure this workflow to update other fields.

About Simple Service Bundles

A *service bundle* is a type of complex product that is created manually in a Siebel application. A *simple service bundle* is a subscription product that is created in Oracle Communications Billing and Revenue Management, then marked as a service instance in a Siebel application. When an order containing this product is submitted, Oracle Application

Integration Architecture recognizes the product as a simple service bundle and creates a service instance in Oracle Communications Billing and Revenue Management.

A simple service bundle combines a service bundle and a billing product into a single Siebel CRM product. Combining two products in one can simplify the product hierarchy of a service bundle. Additionally, synchronizing an already-created subscription product from Oracle Communications Billing and Revenue Management minimizes the manual setup steps for a service bundle in Siebel Communications.

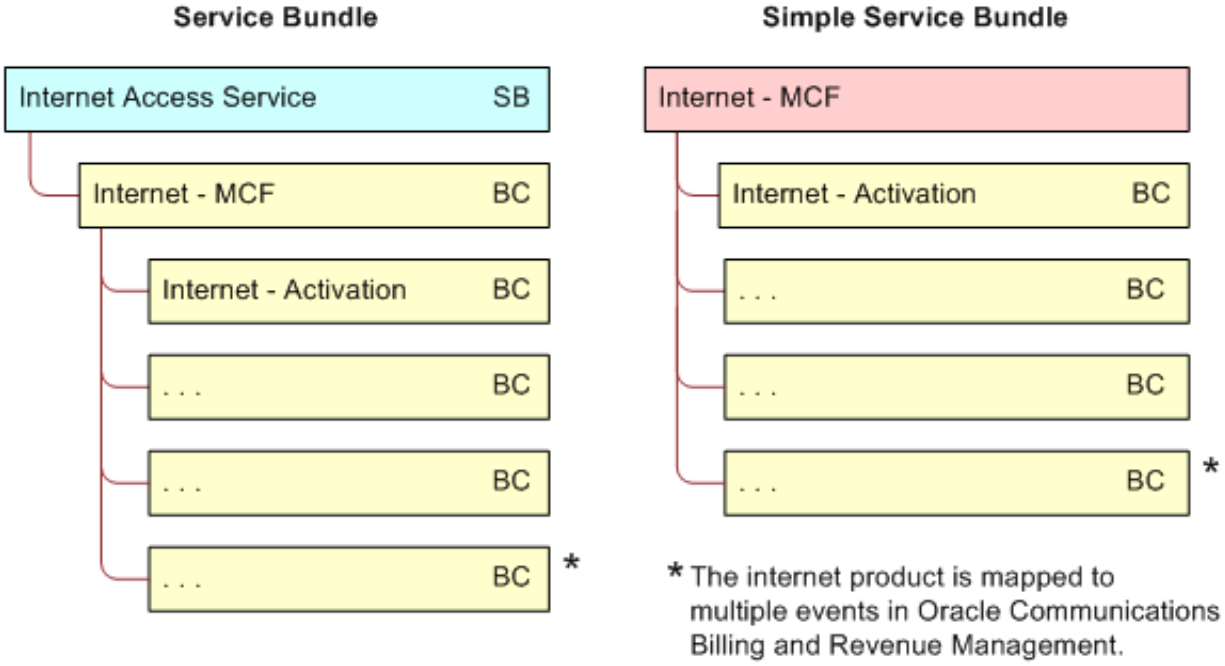
A simple service bundle can include only products of billing type Event as components. These event products are synchronized from Oracle Communications Billing and Revenue Management. For example, a simple service bundle called Internet Service might have a component event product called Internet Activation.

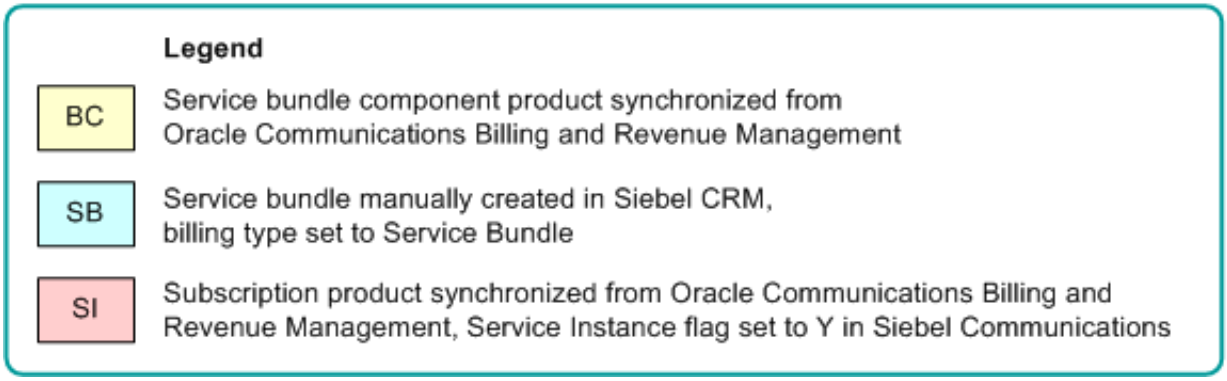
A simple service bundle can be a simple product or a complex product. A simple service bundle that is a simple product represents a single-event product in Oracle Communications Billing and Revenue Management. A simple service bundle that is a complex product represents a multiple-event product in Oracle Communications Billing and Revenue Management.

In Siebel Communications, a simple service bundle can be a root-level product, can be nested in another service bundle, or can be nested in a complex product.

Comparison of Service Bundles and Simple Service Bundles

The following shows how a specific grouping of services might be set up using service bundle functionality only, and how the same grouping of services might be set up using simple service bundle functionality.





Under Service Bundle (the first service group), the item labeled SB represents a service bundle manually created in Siebel CRM, with its Billing Type set to Service Bundle. Items labeled BC represent service bundle component products synchronized from Oracle Communications Billing and Revenue Management. The Internet Access Service bundle is mapped to the Internet - MCF product, and the Internet - MCF product is mapped to multiple events in Oracle Communications Billing and Revenue Management.

Under Simple Service Bundle (the second service group), the item labeled SI represents a subscription product synchronized from Oracle Communications Billing and Revenue Management, with its Service Instance flag set to Y. Items labeled BC represent service bundle component products synchronized from Oracle Communications Billing and Revenue Management. The Internet - MCF product is mapped to multiple events in Oracle Communications Billing and Revenue Management.

In the service bundle, certain features are set up as multiple nested products. For example, Internet Email might be two products, a service bundle product manually configured in Siebel CRM, with an associated component product

synchronized from Oracle Communications Billing and Revenue Management. By contrast, in the simple service bundle, the corresponding features are set up as single products. For example, Internet Email might be one product, a subscription product synchronized from Oracle Communications Billing and Revenue Management, then flagged as a service instance in Siebel CRM.

Constraints on Simple Service Bundles

Simple service bundles operate under the following constraints:

- A product that has pending quotes, orders, or assets in the Siebel application or in Oracle Communications Billing and Revenue Management cannot be converted to a simple service bundle.
- You cannot manually add any items, such as billing products, discounts, special rating products, or other service bundles, to a simple service bundle. The only components a simple service bundle can include are products of billing type Event that are synchronized from Oracle Communications Billing and Revenue Management.
- Disconnecting a simple service bundle disconnects both the service instance and the product in Oracle Communications Billing and Revenue Management. This disconnection means that you cannot upgrade to or downgrade from one simple service bundle to another while retaining the same service instance.
- In a simple service bundle, the service account, billing profile, and billing account must be the same account.

New Purchases and Simple Service Bundles

New orders for simple service bundles have the following characteristics at run time (that is, when new order processing occurs in Siebel Communications):

- **Service and product instances**. A simple service bundle is a subscription product and a service product at the same time. Therefore, when an order for a simple service bundle is processed in Siebel Communications, the integration creates both a service instance and a purchased product instance in Oracle Communications Billing and Revenue Management. If the service is purchased in the context of a promotion, then the product instance in Oracle Communications Billing and Revenue Management is associated with the simple service bundle instance.
- **Quantity**. If a simple service bundle line item has a quantity of more than one, then that quantity applies only to the product purchase. Thus, a simple service bundle line item creates a single service instance and a purchased product instance with a quantity as specified on the order line.
- **Billing types**. The simple service bundle functionality supports both *single-phase billing*, in which both initiation and billing occur in one call to the billing application, and *two-phase billing*, in which initiation and fulfillment occur in separate calls to the billing application.

Change Orders and Simple Service Bundles

Change orders for simple service bundles have the following characteristics at run time (that is, when change order processing occurs in Siebel Communications):

- **Suspend and resume**. Suspending or resuming the asset representing a simple service bundle suspends or resumes the service and product in Oracle Communications Billing and Revenue Management.
- **Disconnect**. Disconnecting the asset representing a simple service bundle cancels the service and product instance in Oracle Communications Billing and Revenue Management.

> **Note:** When using a simple service bundle, it is not possible to cancel the product without canceling the service.

- **Transfer**. Transferring the asset representing a simple service bundle in Siebel Communications (that is, performing a move-add or move-delete operation) results in an adjustment to the cross-reference in Oracle Application Integration Architecture for both the service instance and the purchased product instance.
- **Service update**. Updates the service instance attributes (for example, Service ID, Billing Account, Billing Profile) in the asset representing the simple service bundle result in the same updates to the service instance in Oracle Communications Billing and Revenue Management.
- **Product update**. Updates to product attributes (for example, pricing changes and promotion references) on the asset representing the simple service bundle result in the same updates to the purchased product instance in Oracle Communications Billing and Revenue Management. This update includes changes to billing dates as part of two-phase billing.
- **One-time charge**. If a one-time charge is defined and applied for a move, add, change, and delete (MACD) action in Siebel Communications, then the charge is applied in Oracle Communications Billing and Revenue Management to the balance group for the service instance.

Configuring a Simple Service Bundle

To configure a simple service bundle, follow this procedure.

To configure a simple service bundle

1. Navigate to the Administration - Product screen, then the Products view.
2. Select the Detail view tab.
3. In the Detail form, query for products with a Billing Type field value of Subscription (that is, subscription products) that have been created in and synchronized from Oracle Communications Billing and Revenue Management.
4. Find the product you want to define as a simple service bundle.
5. Complete the field described in the following table.

Field	Comments
Service Instance	Select this check box to identify a subscription product as a simple service bundle. You can select this field only for a product that has a Billing Type field value of Subscription. After pending orders or assets reference a product, you cannot change the value of this field for that product.

The Oracle Communications Billing and Revenue Management application recognizes the product as a simple service bundle and adds event products as child components. When the simple service bundle is synchronized with Siebel Communications again, the event items appear as line items in the simple service bundle.

> **Note:** In Siebel CRM, you cannot add child components to a product with Billing Type set to Subscription and Service Instance set to Y. Synchronization with Oracle Communications Billing and Revenue Management adds child products with Billing Type set to Event.

> **CAUTION:** Do not try to make a subscription product created in Siebel CRM into a simple service bundle by setting its Service Instance flag to Y. Doing so can cause unexpected and unwanted behavior. Oracle Application Integration Architecture does not create a cross-reference to that product on the Oracle Communications Billing and Revenue Management side, or synchronize that product with Oracle Communications Billing and Revenue Management.

Viewing the Event Items in a Simple Service Bundle

To view the child event items associated with a simple service bundle, follow this procedure.

To view the event items in a simple service bundle

1. Navigate to the Administration - Product screen, then the Products view.
2. Select the Detail view tab.
3. In the Detail form, query for products with a Billing Type field value of Subscription and the Service Instance field selected.
4. Find and select the simple service bundle product with the event items you want to view.
5. Click the Specific Products subview tab.

   The Specific Products list displays the event items associated with the selected simple service bundle.

Guidelines for Service Bundles and Simple Service Bundles

The bundling requirements of a service determine whether to define the service as a service bundle or a simple service bundle. When deciding, observe the following guidelines and cautions:

- When only one billing product is applicable for a given service, set up the service as a simple service bundle. This restriction applies because a service with a single billing product does not have any associated service-level billing discounts, nor does a need exist to switch from one product variant to another while retaining the same service. Additionally, this product does not need a special rating.
- A product that is defined as a simple service bundle cannot be changed to a service bundle. Conversely, a product that is defined as a service bundle cannot be changed to a simple service bundle. Such changes adversely affect the processing of change orders for existing assets. If a change to the product bundling requirements necessitates changing a service bundle to a simple service bundle, or the other way around, then you must define another product in Oracle Communications Billing and Revenue Management, synchronize it with Siebel CRM, and configure it differently.
- Because a single asset represents both the service instance and the billing product, you cannot upgrade a customer from a service modelled as a simple service bundle to a service modelled as a service bundle, while retaining the same service instance. You must perform the upgrade through a service cancellation and repurchase.

Configuring Communications, Order-to-Cash, and Master Data Management Integration

This topic contains configuration information for the Oracle Application Integration Architecture Communications, Order-to-Cash, and Master Data Management features of your Siebel application that support integration with Oracle Application Integration Architecture. Perform the tasks described in the subtopics *after* you have finished installing your Siebel application. For more information about activities performed in Siebel Tools, see *Using Siebel Tools* and *Configuring Siebel Business Applications* . For more information about activities performed in the Siebel application, see the relevant topics in this guide, *Siebel Applications Administration Guide* , and related guides.

Setting the System Preferences for Integration

Administrators must set system preference values. The system preferences listed in this topic control aspects of Oracle Application Integration Architecture integration functionality.

To set the system preferences for integration

1. Navigate to the Administration - Application screen, then the System Preferences view.
2. Query for the Oracle Application Integration Architecture integration system preferences, and set the appropriate value for each.

   Oracle Application Integration Architecture integration system preferences are described in the follow table.

System Preference	Comments
Cancel Error Mode	Controls the behavior when an order that has future-dated line items is cancelled. Those future-dated line items are affected by the cancellation of this order. Values are as follows: o **1** Do not display warning messages. o **2** Display warning messages. o **3** (Default) Display warning and error messages, and stop processing.
Validate Due Date	Controls the behavior of the pop-up applet that prompts for the Due Date for change orders such as Modify, Disconnect, Suspend, and Resume. Values are as follows: o **1** No warning messages appear. Modify, Suspend, Resume, and Disconnect (MACD) operations are continued for assets and orders. o **2** (Default) Display warning messages. Enable the Continue button on the Due Date window. o **3** Display warning messages. Disable the Continue button on the Due Date window.
Enable AIA Comms	Controls whether to enable the Oracle Application Integration Architecture Communications integration features. Values are as follows: o **TRUE** Enable Oracle Application Integration Architecture Communications integration features. o **FALSE** Disable Oracle Application Integration Architecture Communications integration features.
Enable AIA Testing	Controls whether to enable the Oracle Application Integration Architecture Communications integration testing features. Values are as follows: o **TRUE** Enable Oracle Application Integration Architecture Communications integration testing. o **FALSE** Disable Oracle Application Integration Architecture Communications integration testing.
AIA Order Backup Path	XML files are available on the specified path, with file names in the form OrderNumber_RevisionNumber.xml. The files can be sorted by Date Modified. Enabled *only* if the Enable AIA Testing system preference is set to TRUE. Value is as follows:

System Preference	Comments
	`/export/home/qa1/orderbackup/`
Workspace Release Flag	A product that is synchronized from Oracle Product Information Management Data Hub is a workspace version, that is, a test version, in Siebel CRM. This system preference holds or releases all the products associated with a workspace. This system preference appears in the SWIProductImportIO, SWIAttributeImportIO, and SWIProductClassImport Web services. Additionally, a Product Release Flag in each product definition can be used to release the individual product. The Workspace Release Flag system preference has the following values: o **N**. Default value. Siebel CRM does not automatically release the products. In this case, a user can set the Product Release Flag of an individual product to Y to release that specific product, and all the other products in the same payload are not released. o **Y**. Siebel CRM automatically releases the products. In this case, all the products belonging to the Workspace are automatically released. This setting overrides the Product Release Flag settings of the individual products in the Workspace. o **D**. Signifies a default or empty value. In this case, the default value of this system preference, which is N, determines whether to automatically release the product.
Enable AIA MDM	Enables or disables the MDM (Master Data Management) PIP. Default value is set to FALSE. To enable the MDM PIP, you must change this system preference value to TRUE and restart the Siebel Server.
Enable AIA OrderToCash	Enables or disables the Order-to-Cash PIP. Default value is set to FALSE. To enable the Order-to-Cash PIP, you must change this system preference value to TRUE and restart the Siebel Server. **CAUTION:** It is recommended that you *not* set the Enable AIA Comms and Enable AIA OrderToCash system preferences to TRUE in the same Siebel CRM instance. Interoperability of Siebel Communications PIPs (Order-to-Bill and Agent Assisted Billing Care) with the Order-to-Cash PIP is not tested or supported by Oracle.
AIA Version	Specifies the version of Oracle Application Integration Architecture with which to integrate your Siebel application. The default and supported value is 2.5.1 (for Oracle Application Integration Architecture Version 2.5.1). **CAUTION:** If you select any other value (not specified in AIA Version), then the application might not function as expected.

3. Set other system preferences, if necessary.

   For more information about system preferences, see *Siebel Applications Administration Guide* .

Setting Up Integration Users

Administrators must designate integration users. These integration user credentials are used by the Siebel application to accept inbound Web service calls from the Oracle Application Integration Architecture product. Integration users are used by the inbound Web services to log in and to create, update, or query records in the Siebel application. You must also set up integration user credentials in the Oracle Application Integration Architecture product that you are using.

To set up an integration user

1. Navigate to the Administration - User screen, then the Employees view.
2. In the employees list, select the record for the employee who you want to set up as an integration user.
3. Select the check box in the Integration User Flag field for this employee.

Enabling Component Groups

Administrators must verify that the component groups for order creation are enabled on the Siebel Server. When you enable component groups, all of the required components in those groups are started on the server for transaction logging. For information about enabling component groups, see *Siebel Applications Administration Guide* .

The following shows the component groups that must be enabled for order creation. Also, verify that the Application Object Manager component is started.

Component Group Name	Component Group Alias
Enterprise Application Integration	EAI
Communications Management	CommMgmt
Siebel CME	Communications
Siebel ISS	ISS
Workflow Management	Workflow

Activating the Workflows for Order Management

Before users can create orders, administrators must verify that the order management workflows are active. For information about activating the order management workflows, see the information about setting up order management in *Siebel Order Management Guide* .

Confirming that Workflows Are Active

Use the following steps to confirm that all C/OM workflows are active.

To confirm that workflows are active

1. Navigate to the Administration - Business Process screen, Workflow Deployment, and then the Active Workflow Processes view.
2. In the first applet, perform one of the following actions:
   - Query for SIS*,Pri*,PSP*,ISS*,Elig*,eSales*
   - Query for the following groups: Eligibility & Comp, Asset Based Ordering, Pricer, eSales, Product Promotions, Configurator, C/OM UI Processes, CUT eSales (for SIA, not for HOR), Product Recommendations.
3. Confirm that all the workflows are active.

Activating the Oracle Application Integration Architecture-Related Workflows

To configure the Siebel UI elements, follow this procedure.

To activate the Oracle Application Integration Architecture-related workflows

1. Modify workflows to enable the UTC date format by completing the following steps:
   a. Create a workspace under MAIN/Integration workspace and change the UTCCanonical process property value from N to Y using Siebel Tools for all the following workflows:

      CMU Credit Alert Status Sync

      CMU SIA Submit Adjustment Request to External

      SISOMBillingSubmitOrderWebService

      SWI Account Update Workflow

      SWI Billing Profile Update Workflow

      SWI Contact Update Workflow

SWI Address Update Workflow

SWI Cancel Sales Order_O2C

SWI External Account Request Sync Process

SWI External Contact Request Sync Process

SWI Special Rating - Synchronize Process

SWIAdjustmentStatusUpdate

SWIOrderUpsert

SWIOrderUpsert_O2C

SWIOrderUpsertSubProcess

SWIQuoteUpsert

SWISendATPCheckLine

SWISendATPCheck

SWISendCalculateShippingCharge

SWISendCreditCheck

SWISendOrder

SWISendPaymentAuthorization

SWISendQuote

b. From the Workspace menu, choose Checkpoint, Submit for Delivery, and then Deliver.

2. Confirm that the workflows listed in the following table are not inactive in the Design Repository.

Workflow Name	Project
*SIS OM Disconnect Asset Sub-process	SIS OM Base Architecture
*SIS OM Move Process	SIS OM Base Architecture
ABO Bulk Request -Validate Process	ABO Bulk Request
ABO Bulk Request - Clear Exception Process Workflow	ABO Bulk Request
ABO Bulk Request - Parallel Sub Process Workflow	ABO Bulk Request

Workflow Name	Project
ABO Bulk Request - Prepare Action Set Sub-Process Workflow	ABO Bulk Request
ABO Bulk Request - Submit Process Workflow	ABO Bulk Request
ABO Bulk Request Add Item Customize Process	ABO Bulk Request
Account - New Order	COM Workflows
Basic Pricing Procedure	Cfg RTC
CMU Credit Alert Status Sync	Web Service Integration
CMU SIA Submit Adjustment Request to External	CMU Billing Integration
CMUBalanceDetailsEventAdjustment	CMU Billing Integration
CMUEventDetailsAdjustmentWF	CMU Billing Integration
CMUInvoiceAdjustmentWF	CMU Billing Integration
CMUItemChargeAdjustmentWF	CMU Billing Integration
CMUUnbilledEventAdjustmentWF	Web Service Integration
CMUUnbilledNonCurrencyEventAdju	Web Service Integration
CZ PSP Interface	Web Service Integration
CZ Return	Web Service Integration
Dynamic Pricing Procedure	Row Set Transformation Toolkit

Workflow Name	Project
ISS Promotion Disconnect Process	ISS Promotion Workflow
ISS Promotion Upgrade Process	ISS Promotion Workflow
Oracle Configurator Load	Web Service Integration
Oracle Verify Complex Product All (Order)	Web Service Integration
Oracle Verify Complex Product All (Quote)	Web Service Integration
Oracle Verify Header (Order)	Web Service Integration
Oracle Verify Header (Quote)	Web Service Integration
Oracle Verify Item (Order)	Web Service Integration
Oracle Verify Item (Quote)	Web Service Integration
Pricing Procedure - Calculate Net Price	Row Set Transformation Toolkit
SIA External Integration Process	Prepaid Service 8.1
SIS OM Add Service Charge Order Sub-Process	SIS OM Base Architecture
SIS OM Add Service Charge Quote Sub-Process	SIS OM Base Architecture
SIS OM Add Service Charge Sub-Process	SIS OM Base Architecture
SIS OM Disconnect Products & Services Process	SIS OM Base Architecture

Workflow Name	Project
SIS OM Edit Complex Asset Workflow	SIS OM Base Architecture
SIS OM Edit Delta Quote Line Item	SIS OM Base Architecture
SIS OM Edit Service Order Line Item	SIS OM Base Architecture
SIS OM Modify Products & Services Process	SIS OM Base Architecture
SIS OM Order Line Item Update Main	SIS OM Base Architecture
SIS OM Submit Order Process	SIS OM Base Architecture
SIS OM Suspend / Resume Asset Sub-Process	SIS OM Base Architecture
SIS OM Suspend / Resume Products & Services Process	SIS OM Base Architecture
SISOMBillingSubmitOrderWebService	CMU Billing Integration
Submit Order ASI	COM Workflows
Submit Quote ASI	COM Workflows
SWI Account Update Workflow	Web Service Integration
SWI Address Update Workflow	Web Service Integration
SWI Asset Status Update	CMU Billing Integration
SWI Billing Profile Update Workflow	Web Service Integration
SWI Cancel Sales Order Line Item	Web Service Integration

Workflow Name	Project
SWI Cancel Sales Order_O2C	Web Service Integration
SWI Configurator Load	Web Service Integration
SWI Contact Update Workflow	Web Service Integration
SWI External Account Integration Process	Web Service Integration
SWI External Account Request Sync Process	Web Service Integration
SWI External Contact Integration Process	Web Service Integration
SWI External Contact Req Integration Process	Web Service Integration
SWI External Contact Request Sync Process	Web Service Integration
SWI External Customer Req Integration Process	Web Service Integration
SWI External Product Sync Workflow	Web Service Integration
SWI Initial Load Non CP Order Release	Web Service Integration
SWI Parent Order	Web Service Integration
SWI Special Rating - Synchronize Process	Web Service Integration
SWI TSQ Order	Web Service Integration
SWIAdjustmentStatusUpdate	Web Service Integration

Workflow Name	Project
SWICancel Sales Order	Web Service Integration
SWICopyOrder	Web Service Integration
SWIOrderUpsert	Web Service Integration
SWIOrderUpsert_O2C	Web Service Integration
SWIOrderUpsertSubProcess	Web Service Integration
SWIQuoteUpsert	Web Service Integration
SWIReviseOrderValidation	Web Service Integration
SWISendATPCheck	Web Service Integration
SWISendATPCheckLine	Web Service Integration
SWISendCalculateShippingCharge	Web Service Integration
SWISendCreditCheck	Web Service Integration
SWISendOrder	Web Service Integration
SWISendPaymentAuthorization	Web Service Integration
SWISendQuote	Web Service Integration
SWISetTBOEndDate	CMU Billing Integration
SWIValidateDependentOrders	Web Service Integration
Verify Header (Order)	COM Workflows
Verify Item (Order)	COM Workflows

Workflow Name	Project

Changing the Default Billing Type to Subscription

The Service Bundle billing type is the default setting for the SIS OM Add Service Charge Sub-Process workflow. You can change this workflow to apply the Subscription billing type instead. For more information about the SIS OM Add Service Charge Sub-Process workflow, see *Siebel Order Management Guide Addendum for Communications* . For information about changing and redeploying a workflow process, see *Siebel Business Process Framework: Workflow Guide* .

To change the default billing type to Subscription

1. Log in to Oracle's Siebel Tools as an administrator.
2. In the Workflow Processes list, select SIS OM Add Service Charge Sub-Process.
3. Click the Traverse and Get Prod Ids step.

   Siebel Tools displays the following input parameters for the step:

   QuoteFieldValue1 = LookupValue ("PROD_BILLING_TYPE", "Service Bundle")

   OrderFieldValue1 = LookupValue ("PROD_BILLING_TYPE", "Service Bundle")
4. In the QuoteFieldValue1 and OrderFieldValue1input parameters, replace Service Bundle with Subscription.
5. Save the workflow.

Oracle Advanced Queuing

Oracle Streams Advanced Queuing (AQ) is a database-integrated messaging infrastructure in Oracle database. AQ uses the functionality of the Oracle database to store messages in persistent queues. All operational benefits of the Oracle database such as high availability, scalability, and reliability are applicable to the messages and queues in AQ. Standard database features such as backup and recovery, security, and manageability are available to AQ.

AQ has been implemented for the following outbound Web services in this release:

- Special Rating List
- Submit Order
- Adjustment

The following topics contain information about how to implement AQ in your Siebel application and more detailed information about these outbound Web services.

Special Rating List

This service is used to synchronize the modified friends and family list with the external Oracle Communications Billing and Revenue Management application. It is invoked through the Synchronize button in the Special Rating list applet.

Use the following procedure to sync the modified list.

To sync the modified list

1. Navigate to Accounts screen, then Accounts List view.
2. Query for the Target Account from the list.
3. Drill down on the name of the account.
4. Navigate to the Profiles view, then the Special Rating Profile subview.
5. Query for the target special rating list and click Synchronize.

   The Synchronize button invokes the SWI Special Rating List - Synchronize Process workflow using the Named Method Business Component user property.

   The SWI Special Rating - Synchronize Process workflow is a new workflow created for the AIA Comm 2.4 release. It is invoked through the Synchronize button, which is available in the Special Rating list applet (Navigate to the Accounts screen, Accounts List, Profiles, and then the Special Rating Profile view). The workflow contains the steps to query for and synchronize the updated Special Rating List with Oracle Communications Billing and Revenue Management by calling the Proxy Business Service, as follows:

   ```
   Start > (Connector 0) > Query Special Rating List > Synchronize > Update List Synch
   Date > Update Items Synch Date > End 0
   ```

   Note the following information about the SWISpecialRatingList outbound Web service:

   - It is a new Web service.
   - It is an asynchronous outbound Web service.
   - Its namespace is http://siebel.com/asi.

   This Web service is used to send the Updated/Modified Special Rating List details to Oracle Communications Billing and Revenue Management for synchronizing when the user clicks the Synchronize button in the Special Rating list applet.

   This AQ and connection factories are created in FMW and the same URI must be used in outbound Web service target address.

Update Target Address

Use the following procedure to update the target address.

To update the target address

1. Navigate to the Administration - Web Services screen.
2. Navigate to the Outbound Web Services aggregate view.
3. Query for the SWISpecialRatingList service name.
4. Change the following field values in the Service Port applet:
   - Transport: JMS
   - Address: Give the AQ URL in FMW.

     (For example, `jms://java:comp/resource/CommsJmsRP1/Queues/AIA_SPECIALRATINGJMSQ@java:comp/resource/CommsJmsRP1/QueueConnectionFactories/QCF`)

     Note: If FMW 11g is used, then the example of the address is as follows:

```
jms://jms/aia/AIA_SPECIALRATINGJMSQ@jms/aia/COMMS_SPECIALRATINGLIST_CONSUMER
```

5. Save the record and click Clear Cache.

Submit Order Outbound Web Service

This outbound service is used to send the order details to Oracle Application Integration Architecture. The user initiates the service by clicking the Submit button on the order header form in the Order Entry view.

Use the following procedure to initiate the Submit Order outbound service.

To initiate the Submit Order outbound service

1. Navigate to the Sales Order screen, then the List view.
2. Query for the Target Sales Order.
3. Drill down on the order number of the order.
4. Click Submit.

SISOMBillingSubmitOrder Web Service Workflow

This workflow is an existing workflow that submits an order from the Siebel CRM application to the billing application and creates a new account, if needed, in the billing application. Users initiate this workflow by clicking the Submit button on the order header form in the Order Entry view.

Note the following information about the SWISubmitOrder outbound Web service:

- It is a new Web service.
- It is an outbound Web service.
- Its namespace is http://siebel.com/asi.

Use this Web service to submit orders into the queue. This AQ and connection factories are created in FMW and the same URI must be used in outbound Web service target address.

Use the following procedure to update the address:

To update the address

1. Navigate to the Administration - Web Services screen.
2. Navigate to the Outbound Web Services aggregate view.
3. Query for the SWISubmitOrder service name.
4. Change the following field values in the Service Port applet:
    - Transport: JMS
    - Address: Give the AQ URL in FMW.

      (for example, `jms://java:comp/resource/CommsJmsRP1/Queues/AIA_SALESORDERJMSQUEUE@java:comp/resource/CommsJmsRP1/QueueConnectionFactories/QCF`)

    Note: If FMW 11g is used, then the example of the address is as follows:

    ```
    jms://jms/aia/AIA_SALESORDERJMSQUEUE@jms/aia/COMMS_SUBMITORDER_CONSUMER
    ```

5. Save the record and click Clear Cache.

SWICreateAdjustment Outbound Web Service

This outbound service is used to Submit an Adjustment request to Oracle Communications Billing and Revenue Management. Users initiate the service by clicking the Submit button on the SIA CUT Adjustment External Line Items view.

To initiate the SWICreate Adjustment outbound Web service

1. Navigate to the Billing Adjustments screen, then SIA CUT Adjustment External Line Items view.
2. Query for the particular adjustment.
3. Click Submit.

CMU SIA Submit Adjustment Request to External Workflow

This workflow has been modified as part of the Adjustment Revenue Leakage Enhancement feature. This workflow submits the Adjustment Request to the external application by invoking an outbound Web service and changing the status of Adjustment Header to Submitted. Users initiate this workflow by clicking the Submit button in the Billing Adjustments screen.

This workflow does the following:

1. Queries the adjustment request.
2. If the adjustment request is not approved, then it changes the status of the request to Pending, and terminates.
3. If the adjustment request is approved, then it reads the enterprise details, such as the enterprise server name, language, and locale.
4. Sets the enterprise details as part of the request message.
5. Makes an outbound call to the AQ.
6. Updates the Siebel database for the Adjustment Record to reflect the status as Submitted.

SWICreateAdjustment Outbound Web Service

Note the following information about the SWICreateAdjustment outbound Web service:

- It is a new Web service.
- It is an outbound Web service.
- Its namespace is http://siebel.com/asi.

Use this Web service to Submit Adjustment Request into the queue. This AQ and connection factories are created in FMW and the same URL must be used in outbound Web service target address.

Use the following procedure to update the address.

To update the address

1. Navigate to the Administration - Web Services screen.
2. Navigate to the Outbound Web Services aggregate view.
3. Query for the SWICreateAdjustment service name.
4. Change the following field values in the Service Port applet:
    - Transport: JMS
    - Address: Give the AQ URL in FMW.
      (for example, `jms://java:comp/resource/CommsJmsRP1/Queues/AIA_CMUREQADJIOJMSQUEUE@java:comp/resource/CommsJmsRP1/QueueConnectionFactories/QCF`)

> **Note:** If FMW 11g is used, then the example of the address is as follows:

```
jms://jms/aia/AIA_CMUREQADJIOJMSQUEUE@jms/aia/COMMS_ADJUSTMENT_CONSUMER
```

5. Save the record and click Clear Cache.

Advanced Queue Configuration

The subtopics in this topic describe how to perform advanced queue configuration.

Configuring Java Subsystem for Fusion Middleware 10g Integration

In addition to performing the setup tasks for integrating Fusion Middleware in the Siebel installation guide, perform the following procedure.

> **Note:** Paths in this procedure assume you are running the Siebel Server on the Windows operating system. They must be modified whether the Siebel Server is running on a UNIX operating system.

To configure Java subsystem for Fusion Middleware 10g Integration

1. Extract oc4j-extended.zip the following location to a folder in a computer where the Siebel Server is installed, such as `D:\JMS` folder.

   http://download.oracle.com/otn/java/oc4j/101330/oc4j_extended_101330.zip
2. Copy Siebel.jar and SiebelJI_enu to `D:\JMS` folder, these jar files can be found in Siebel Server installation directory `\classes` folder
3. Copy jndi.jar file from FMW to `D:\JMS\j2ee\home\lib` folder.
4. Copy com/evermind/util/JCAProperties.class from the oc4j-internal.jar file to the `D:\JMS` folder.
5. Create a file with name jndi.properties with following details in the path `D:\JMS`:

   java.naming.factory.initial=com.evermind.server.rmi.RMIInitialContextFactory

   java.naming.provider.url=opmn:ormi://IP Address of the FMW server:OPMN Port No:oc4j_soa

   java.naming.security.principal=anonymous

   For example:

   java.naming.factory.initial=com.evermind.server.rmi.RMIInitialContextFactory

   java.naming.provider.url=opmn:ormi:// 152.68.240.154:6009:oc4j_soa

   java.naming.security.principal=anonymous

   Make sure that there are no extra spaces in the jndi.properties file.
6. Create a Named Subsystem in the Siebel application through the server management by completing the following steps:
   a. Connect to the server manager from the command prompt from the bin directory of the Siebel installed folder with the following command.

      ```
      Srvrmgr /g gatewayserver /e enterpriseserver /s siebelserver /u userid /p password
      ```

Example: `srvrmgr /g sdc78198svqe:4330 /e siebel /s sdc78198svqe /u sadmin /p sadmin`

b. Run the following command to create the named subsystem and add the jar file into the class path.

```
Create named subsystem JAVA for subsystem JVMSubSys with

DLL=C:\Sun\SDK\jdk\jre\bin\server\jvm.dll, CLASSPATH =
D:\JMS;D:\JMS\Siebel.jar;D:\JMS\rdbms\jlib\aqapi.jar;D:\JMS\jdbc\lib\ocrs12.jar
;D:\JMS\jdbc\lib\ojdbc14dms.jar;D:\JMS\jdbc\lib\orai18n.jar;D:\JMS\SiebelJI_enu
.jar;D:\JMS\j2ee\home\lib\adminclient.jar;D:\JMS\j2ee\home\lib\jndi.jar;D:\JMS\
j2ee\home\lib\jta.jar;D:\JMS\j2ee\home\oc4jclient.jar;D:\JMS\j2ee\home\lib\bcel
.jar;D:\JMS\j2ee\home\lib\jms.jar;D:\JMS\j2ee\home\lib\javax77.jar;D:\JMS\lib\d
ms.jar;D:\JMS\opmn\lib\optic.jar;D:\JMS\j2ee\home\lib\ejb.jar;., VMOPTIONS=
D:\JMS\log\jms.log
```

For the UNIX environment the CLASSPATH is separated by : (colon). For the Windows environment it is separated by ; (semicolon). So, the command for the UNIX environment is as follows:

```
Create named subsystem JAVA for subsystem JVMSubSys with

DLL= /usr/jdk1.5.0_06/jre/lib/sparc/client/libjvm.so, CLASSPATH = /export/home/
qa1/JMS:/export/home/qa1/JMS/Siebel.jar:/export/home/qa1/JMS/rdbms/jlib/
aqapi.jar:/export/home/qa1/JMS/jdbc/lib/ocrs12.jar:/export/home/qa1/JMS/jdbc/
lib/ojdbc14dms.jar:/export/home/qa1/JMS/jdbc/lib/orai18n.jar:/export/home/qa1/
JMS/SiebelJI_enu.jar:/export/home/qa1/JMS/j2ee/home/lib/adminclient.jar:/
export/home/qa1/JMS/j2ee/home/lib/jndi.jar:/export/home/qa1/JMS/j2ee/home/lib/
jta.jar:/export/home/qa1/JMS/j2ee/home/oc4jclient.jar:/export/home/qa1/JMS/
j2ee/home/lib/bcel.jar:/export/home/qa1/JMS/j2ee/home/lib/jms.jar:/export/home/
qa1/JMS/j2ee/home/lib/javax77.jar:/export/home/qa1/JMS/lib/dms.jar:/export/
home/qa1/JMS/opmn/lib/optic.jar:/export/home/qa1/JMS/j2ee/home/lib/ejb.jar:.,
VMOPTIONS= /export/home/qa2/JMS/log/jms.log
```

Make sure that the path is correct for all the files and that the CLASSPATH ends with a . (dot). Replace qa2 with the appropriate folder name.

7. Log in to the Siebel application and navigate to the Administration - Server Configuration screen, Enterprises, and then the Profile Configuration view, and complete the following steps:
   a. Query for the Profile with Alias Name JAVA in the profile list and make sure the parameters are correct.
   b. For the Windows environment, edit the value of VMOPTIONS to:

```
-Djms.log=D:\JMS\log\jms.log
```

   c. For the Solaris environment, edit the value of VMOPTIONS to:

```
-Xusealtsigs -Xrs -Djms.log=/export/home/qa2/JMS/log/jms.log.
```

Make sure that the `JMS/log` folder exists and has the write permission.

8. Restart the Siebel Server.

> **Note:** For more information, see the Siebel Enterprise Application Integration (EAI) documentation on the *Siebel Bookshelf* .

Configuring Corresponding Web Services for Advanced Queue

This topic contains information about how to configure corresponding Web services for AQ. AQ configuration involves configuring JMS messaging between Siebel Business Applications and the Oracle SOA suite using Oracle Advanced Queuing. For more information about this configuration, see *Transports and Interfaces: Siebel Enterprise Application Integration* .

Use the following procedure to configure corresponding Web services for AQ.

To configure corresponding Web services

1. Navigate to the Administration - Web Services screen, then the Outbound Web Services view and query for SWI*.
2. Change the transport to JMS and address as:

   ```
   jms://queue name@connection factory
   ```

   queue name is in the following format:

   ```
   java:comp/resource/ Resource Provider Name as configured/Queues/queue name
   ```

   connection factory is in the following format:

   ```
   java:comp/resource/Resource Provider Name as configured/QueueConnectionFactories/
   QCF
   ```

   Queues must have been created as part of Oracle Application Integration Architecture installation. Refer the queue name in this step.
3. To locate the Connection Factory Name, log in to Application Server control, and navigate to oc4j_soa ' Administration, then Database Persistence.

   Here you can find the Resource Provider Name if it is configured.

   Example: `jms://java:comp/resource/AIA_JMS_RP/Queues/AIA_SALESORDERJMSQUEUE@java:comp/resource/AIA_JMS_RP/QueueConnectionFactories/QCF`
4. After changing the address, click Clear Cache.
5. If you are using the Communications PIP or the Order-To-Cash PIP, then proceed to one of the following steps:
   - **Communications PIP.** Go to Step 6.
   - **Order-To-Cash PIP.** Go to Step 7.
6. For the Communications PIP, configure the following Web services:
   - SWICreateAdjustment

     Example for FMW 10g:

     ```
     jms://java:comp/resource/AIA_JMS_RP/Queues/AIA_CMUREQADJIOJMSQUEUE@java:comp/
     resource/AIA_JMS_RP/QueueConnectionFactories/QCF
     ```

     Example for FMW 11g:

```
jms://jms/aia/AIA_CMUREQADJIOJMSQUEUE@jms/aia/COMMS_ADJUSTMENT_CONSUMER
```

- SWISpecialRatingList

  Example for FMW 10g:

  ```
  jms://jms/aia/AIA_SPECIALRATINGJMSQ@jms/aia/COMMS_SPECIALRATINGLIST_CONSUMER
  ```

  Example for FMW 11g:

  ```
  jms://jms/aia/AIA_SPECIALRATINGJMSQ@jms/aia/COMMS_SPECIALRATINGLIST_CONSUMER
  ```

- SWISubmitOrder

  Example for FMW 10g:

  ```
  jms://jms/aia/AIA_SALESORDERJMSQUEUE@jms/aia/COMMS_SUBMITORDER_CONSUMER
  ```

  Example for FMW 11g:

  ```
  jms://jms/aia/AIA_SALESORDERJMSQUEUE@jms/aia/COMMS_SUBMITORDER_CONSUMER
  ```

7. For the Order-To-Cash PIP, configure the following Web services:

   - SWISubmitOrder_o2c

     Example for FMW 10g:

     ```
     jms://java:comp/resource/DBConnect/Queues/JMSUSER.AIA_QUOTEJMSQUEUE@java:comp/
     resource/DBConnect/QueueConnectionFactories/QCF
     ```

     Example for FMW 11g:

     ```
     jms://jms/aia/AIA_SiebelSalesOrderJMSQueue@jms/aia/AIASiebelCF
     ```

   - SWISubmitQuote_o2c

     Example for FMW 10g:

     ```
     jms://java:comp/resource/DBConnect/Queues/JMSUSER.AIA_QUOTEJMSQUEUE@java:comp/
     resource/DBConnect/QueueConnectionFactories/QCF
     ```

     Example for FMW 11g:

     ```
     jms://jms/aia/AIA_SiebelQuoteJMSQueue@jms/aia/AIASiebelCF
     ```

Configuring Java Subsystem for Fusion Middleware 11g Integration

In addition to performing the setup tasks for integrating Fusion Middleware in the Siebel installation guide, perform the following procedure.

> **Note:** Paths in this procedure assume you are running the Siebel Server on the Windows operating system. They must be modified if the Siebel Server is running on a UNIX operating system.

To configure Java subsystem for Fusion Middleware 11g Integration

1. Get the wlfullclient.jar file from the FMW/AIA team. If you cannot get this file, then perform the following steps to create wlfullclient.jar in the FMW server:
   a. WinScp to the SOA server.
   b. Change directories to the `server/lib` directory. For example, go to the `WL_HOME/server/lib`.
   c. Execute the command:

      ```
      java -jar wljarbuilder.jar
      ```

      The wlfullclient.jar file is created.
2. Remotely login to the Siebel installed server.
3. Get the files Siebel.jar and SiebelJI_enu.jar from the following directory:

   ```
   siebel installation\ses\siebsrvr\classes
   ```

4. Copy the wlfullclient.jar, Siebel.jar and SiebelJI_enu.jar to the directory `D:\JMS`. If this directory does not exist, then create it.
5. Prepare the jndi.properties file with the following values:

   ```
   java.naming.factory.initial=weblogic.jndi.WLInitialContextFactory
   java.naming.provider.url=t3://FMW_HOST:SOA_PORT
   java.naming.security.principal=UserName
   java.naming.security.credentials=Password
   ```

   > **Note:** If Oracle Application Integration Architecture is running in a clustered environment and has a setup proxy host, then jndi.properties have following URL: java.naming.provider.url=http://FMW_HOST:PROXY_PORT

6. Create the JAVA Subsystem using the Siebel Web application as follows:
   a. Connect to the server manager from the bin directory of the Siebel installed folder by entering the following command from the command prompt:

      ```
      Srvrmgr /g gatewayserver /e enterpriseserver /s siebelserver /u userid /p password
      ```

      For example:

      ```
      srvrmgr /g sdc78198svqe:4330 /e siebel /s sdc78198svqe /u sadmin /p sadmin
      ```

   b. Enter the following command to create the named subsystem:

      ```
      Create named subsystem JAVA for subsystem JVMSubSys
      ```

   c. Add parameters with the aliases CLASSPATH, DLL, and VMOPTIONS, as described in the tables that follow.

      The following table specifies the Name, Data Type, and Value values to enter for the parameters with aliases CLASSPATH, DLL, and VMOPTIONS.

Alias	Name	Data Type	Value
CLASSPATH	JVM Classpath	String	`D:\JMS;D:\JMS\Siebel.jar;D:\JMS\SiebelJ I_enu.jar;D:\JMS\wlfullclient.jar;.`
DLL	JVM DLL Name	String	`C:\Sun\SDK\jdk\jre\bin\server\jvm.dll`
VMOPTIONS	JVM Options	String	`-Djms.log=D:\JMS\log\jms.log`

The following table specifies the Scope, Type, Description, and Visibility values to enter for the parameters with aliases CLASSPATH, DLL, and VMOPTIONS.

Alias	Scope	Type	Description	Visibility
CLASSPATH	Subsystem	JVM Configuration Subsystem	JVM Classpath	Basic
DLL	Subsystem	JVM Configuration Subsystem	JVM DLL Name	Basic
VMOPTIONS	Subsystem	JVM Configuration Subsystem	JVM Options	Basic

7. Create the Simulator (with the service name: EAI JMS Transport and Method name: CheckAll).
8. In the Input Argument Section, create Test Case 1 with the values in the following table.

Type	Property Name	Property Value
PropertySet	ConnectionFactory	jms/TestQueueCF
PropertySet	SendQueue	jms/TestQueue

9. Click Run to verify the setup in the simulator.

   No error messages appear after the run.

Configuring FMW URLs for Web Services

Use the procedures in this topic to configure FMW URLs for Web services.

Configuring FMW URLs for Outbound Web Services

To configure FMW URLs for the outbound Web services, follow this procedure.

To configure FMW URLs for outbound Web services

1. Log in to the Siebel application as an administrator.
2. Navigate to the Administration - Web Service screen, then the Outbound Web Services view.
3. Query for "*JMS* OR *ABCS* OR *ESB* OR *ConfiguratorUserLangSiebelAdapter* OR SyncCustomerSiebelEventAggregator" on the Name field of the Web Services applet.
4. Navigate to the Service Ports list applet and change the URI given by the ABS team.
5. Query for *JMS* and *Sync* and change the URI as follows:
    - Web Service Name: SyncCustomerSiebelEventAggregator
    - Address: http://host name:port/soa-infra/services/default/SyncCustomerSiebelEventAggregator/Client (For example, http://ap6039fems.us.oracle.com:7797)

      Note: If FMW 11g is used for integration, then a complete change of address is required. For example:

Configuring FMW URLs for Inbound Web Services

URL-based authentication is disabled by default. SOAP Header authentication is recommended. An example of the new URL is as follows:

```
http://sdchs20n513.corp.siebel.com/eai_enu/
start.swe?SWEExtSource=WebService&SWEExtCmd=Execute&WSSOAP=1
```

An example of the SOAP Header is as follows:

```
<soapenv:Header>
 <ns1:SessionType xmlns:ns1="http://siebel.com/webservices">none</ns1:SessionType>
 <ns2:UsernameToken xmlns:ns2="http://siebel.com/webservices">SADMIN</
ns2:UsernameToken>
 <ns3:PasswordText xmlns:ns3="http://siebel.com/webservices">MSSQL</
ns3:PasswordText>
</soapenv:Header>
```

To configure FMW URLs for the inbound Web services, follow this procedure.

To configure FMW URLs for inbound Web services

1. In the Administration - Web Services screen, then the Inbound Web Services view, run the following query: *ISS *; * Update Order *; SWI*
2. In the middle Inbound Service Ports list applet, change the address to the following: http://localhost/eai_lang/start.swe?SWEExtSource=WebService&SWEExtCmd=Execute&WSSOAP=1

   Note: Replace the string localhost, lang with the correct information from your Web server.

3. Repeat the preceding steps for all inbound Web services.
   For more information, see the Siebel Enterprise Application Integration (EAI) guides.

Setting Up the Workflow Monitor Agent

The subtopics in this topic describe Workflow Monitor Agent setup tasks.

Configuring Workflow Monitor Agent

Use the following procedure to configure Workflow Monitor Agent.

To configure Workflow Monitor Agent

1. Navigate to the Administration - Server Configuration screen, Enterprises, and then the Component Definitions view, and query for Workflow*.
2. Make a copy of the Workflow Monitor Agent and change the name to Workflow Monitor Agent SWI.
3. Change the Alias name to 'WorkMonSWI'.
4. Under Component Parameters, query for Group Name and change the Group Name to SWI Customer Update Policy Grp in the Component Parameter applet.
5. Change the Action Interval to 5.
6. Click Advanced to change the Sleep Time to 15.
7. Click Advanced to change the Default Task to 1.
8. Click Activate to change the status of the new component to Active.
9. Synchronize the components.

Configuring Default Tasks for Workflow Monitor Agent

Server Manager contains a parameter called 'Show Advanced Objects' that controls the display of all the objects that are marked for the advanced user.

Workflow Monitor Agent has a parameter called 'Default Tasks' which has been hidden and is available only to advanced users.

Use the following procedure to reveal this hidden parameter.

To display the Default Tasks parameter

1. Navigate to the Administration - Server Configuration screen, then the Servers view.
2. In the upper Siebel Servers applet, select the server on which you want to modify the parameter.
3. Under the Component subtab, query for the Server Manager component.
4. Under the Component Parameter subtab, query for 'Show Advanced Objects'.
5. Change the value to 'True'.
6. Click Advanced to change the Default Task parameter to 1.

   > **Note:** You must log out from the current user session and log back in to the application in order for the parameter to take effect.

7. Rename the existing diccache.dat file in the path Installed Directory `\ses\siebsrvr\bin`.

Starting Tasks for Workflow Monitor Agent for Customer Synchronization

Use the following procedure to start tasks for the component that is online and enabled.

To start tasks for Workflow Monitor Agent

1. Navigate to the Administration - Server Management screen.
2. Select Tasks.
3. Query for the WorkMonSWI task and start it. You can also use Server Manager to start the task.
4. Start srvrmgr: Srvrmgr /g gatewayserver /e enterpriseserver /s siebelserver /u userid /p password
5. Start the task for the WorkMonSWI component.

After about five minutes, check for log details for the task for the new workflow monitor component Workflow Monitor Agent SWI by navigating to the Administration - Server Management screen, then the Tasks view.

If there are errors, then check to see whether all configurations have been properly performed.

Setting Order Priority for Advanced Queue

Use the following procedure to set order priority for AQ.

To set order priority for AQ

1. Navigate to the Administration - Data screen, then the List Of Values view.
2. Query for Type equals SWI_ORDER_JMS_PRIO_MAPPING.
3. Change the values in the Language-Independent Code column to define the new mapping according to following table.

Display Value	Language-Independent Code
Low	6
Medium	4
High	2
Urgent	0

4. Click Clear Cache to clear the cache.

Setup for Synchronizing Products with New and Existing Products

To set up for synchronizing products in a batch with new and existing products, you must set the DisableUserKeyCache user property to Y in the SWI Admin ISS Product Definition and SWI ISS Promotion integration objects.

To set up for synchronizing products with new and existing products

1. Log in to Siebel Web Tools.
2. Search for the SWI Admin ISS Product Definition and SWI ISS Promotion integration objects.
3. In each of the integration objects, navigate to the Integration Object UserProperty and set the value of DisableUserKeyCache to Y.
4. Save the changes to the Workspace and submit for delivery.

Note: DisableUserKeyCache is set to N by default because of known performance issues. For more information, see the Siebel Enterprise Application Integration (EAI) guides.

Setting Up the Session Pool Manager

The Session Pool Manager (SPM) is a service in the Service-Oriented Architecture (SOA) Web server. The main function of the SPM is managing a pool of Web Server Session Tokens to be reused among Business Process Execution Language (BPEL) flows. If SPM is enabled in Oracle Application Integration Architecture, then follow this procedure to make the changes that are required for your Siebel application.

To set up the Session Pool Manager

1. Launch the Siebel Management Console and modify the following settings for the Application Interface:

   SessionTimeout = 300

   SessionTokenTimeout = 15

   SessionTokenMaxAge = 2880

   SWSENoSessInPref = TRUE
2. Restart the Siebel Web server.

Performing Required Tasks for the Order-to-Cash PIP

The tasks in this topic are required if you are using the Order-to-Cash PIP.

Disabling Asset-Based Ordering

Use the following procedure to disable Asset-Based Ordering.

To disable Asset-Based Ordering

1. Log in to the Siebel application, and navigate to the Administration - Server Configuration screen, Servers, then the Parameters view.
2. Query for the corresponding object manager for the application (such as htimObjMgr_enu for application HTIM).
3. Query for the Order Management - Enable Asset Based Ordering parameter in the parameter list for the component, and set the value to False.
4. Restart the Siebel Server.

Running EIM Data Migration

This topic describes how to run the EIM jobs for implementing the O2C PIP.

Data Migration Sequence

Execute the entities in the following table in sequence to maintain the data integrity. This table includes the pre-and post EIM activities, which must be carried out manually.

S.No	Main Entities	Task Type
1	Organization	Manual
2	Inventory Location	Manual
4	Products	EIM
5	Post EIM Product Release	Manual
5	Pricelist	EIM
6	Customers	EIM
7	Assets	EIM

Before you begin the EIM import, note the following points:

- Make sure that the Siebel Server is running.
- Make sure that the Siebel EIM component is online and is running properly. (Navigate to the Administration - Server Configuration or Administration - Server Management screen.)
- To avoid data loss, do not restart the Siebel Server while the EIM job is running.
- After you have completed the data load for one country, make backup copies of the EIM log files, for status verification. These log files are located in the `siebsrvr/logs` directory.

Checking EIM Component Availability

Use the following procedure to check EIM component availability.

To check EIM component availability

1. Navigate to the Administration - Server Management screen, Servers, and then the Component Groups view. Make sure that the component group Enterprise Application Integration is active and online.
2. Make sure that the Enterprise Integration Manager component within the Workflow Management component group is also active and online.
3. Navigate to the Administration - Server Configuration screen, Enterprise, Component Groups, and then the Components Group Assignments view.
4. Make sure that the Enterprise Application Integration Component Group is enabled.

Setting Up Organizations

Use the following procedure to set up organizations.

To set up organizations

1. Navigate to the Administration - Group screen, then the Organizations view.
2. Create the required organizations.

Note: Enter information into the Organization Name field but leave the Site field blank.

Setting Up Inventory Locations

Use the following procedure to set up inventory locations.

To set up inventory locations

1. Navigate to the Administration - Data screen, then the Inventory Locations view.
2. Create inventory locations.

> **Note:** Make sure that the inventory location is associated with the correct location.

Executing the EIM Job

Use the following procedure to execute the EIM job.

To execute the EIM job

1. Place the respective IFB file on the server computer using the `Siebsrvr/Admin` file path, as shown in the following example.

Component	IFB File
Product	Product.ifb
Pricelist	Pricelist.ifb
Customer	Customer.ifb
Asset	Asset.ifb

2. Make sure that the SESSION SQL statement of the [UPDATE ACCOUNT NUMBER] section of the Customer Ifb file is modified to reflect the working instance:

```
UPDATE ORA19111.EIM_ACCOUNT SET OU_NUM = T_ORG_EXT__RID WHERE
IF_ROW_BATCH_NUM=100
```

where ORA19111 is the working instance.

Also, consider the same for the [UPDATE INTEGRATION ID] section of the Pricelist.ifb file:

```
SESSION SQL = "UPDATE ORA19111.EIM_PRI_LST SET PL_INTEGRATION_ID = NULL WHERE
PL_INTEGRATION_ID IS NOT NULL"
```

For Pricelist.ifb, comment the second process using a terminate symbol (so that it becomes inactive and only the first process is executed) as follows:

```
[IMPORT ALL PRICELISTS]
TYPE = SHELL
INCLUDE = "IMPORT PRICELIST"
```

```
;INCLUDE = "UPDATE INTEGRATION ID"
```

After EIM imports all of the pricelist data and the Integration Id is populated, the administrator needs to run another ODI API to populate the cross-reference database. Then, the administrator needs to run EIM again to nullify integ_id. The format of the IFB file for the second run follows:

```
[IMPORT ALL PRICELISTS]
TYPE = SHELL
;INCLUDE = "IMPORT PRICELIST"
INCLUDE = "UPDATE INTEGRATION ID"
```

All the job parameters must remain the same for both of the runs.

3. Log in to the application with administrator credentials to be able to access the Server Management screen.
4. Navigate to the Administration - Server Management screen, then the Jobs view.
5. Create a new record, and select Enterprise Integration Mgr in the Component/Job field.
6. In the Job Parameters applet, fill in the following parameters:
   - Configuration file = .Ifb File name
   - Error Flags = 1
   - SQL Trace Flags = 8
   - Trace Flags = 1
7. After passing parameters, click Submit Job.
8. In the Jobs view, for each job that you have executed, make sure that the Status column displays Success for the jobs that you have executed.
9. Check the status in the EIM table by executing the SQL statements that follow. In each case, make sure that the status is IMPORTED.

Products

Product Header:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_PROD_INT
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Product Details:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_PROD_INT1
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Product-Inventory Locations:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_PRODINVLOC
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Pricelists

In this case since the same set of records are processed twice by the two separate sections of the IFB file: one meant for importing the Pricelist Records and other meant for updating the Integration Id to NULL, you get the DUP_REC_EXISTS status in the EIM tables.

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_PRI_LST
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Customers

Address:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_ADDR_PER
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Account:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_ACCOUNT
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Account Details:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_FN_ACCNT1
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Customer:

```
SELECT COUNT(*),IF_ROW_STAT FROM EIM_CONTACT
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT
```

Assets

There are two sections in the IFB file: For Importing Assets and For Updating the Parent Assets.

Hence the status shows DUP_REC_EXISTS

```
SELECT COUNT(*),IF_ROW_STAT,IF_ROW_BATCH_NUM FROM EIM_ASSET
WHERE IF_ROW_BATCH_NUM = '100'
GROUP BY IF_ROW_STAT,IF_ROW_BATCH_NUM
```

Checking the EIM Log File

Use the following procedure to check the EIM log file.

To check the EIM log file

1. From the Jobs view in the Administration - Server Management screen, navigate to the Tasks View in the same screen.
2. Get the task number from the Task field.
3. Navigate to the `Siebsrvr\log` directory, and query for the log file using the task number. The log file contains details about every level of processing and information about any errors.

Configuring Oracle Configurator

Use the following procedure to apply the run changes for the configuration to the database. The runtime configuration changes must be done before you can launch Oracle Configurator.

To apply runtime Siebel configuration changes

1. Login to eCommunications/HTIM application from a Web browser.
2. Navigate to the Administration - Integration screen, then the WI Symbolic URL List view, and complete the following steps:
    a. From the Show drop-down list, select Host Administration.

b. Add a new host entry with the following values:

   - Host Name: Oracle EBIZ host name:port number, for example, qapache.us.oracle.com:3710
   - Virtual Name: OracleConfigurator

c. Select Symbolic URL Administration and add a record in the upper applet with the following values:

   - Name: OracleCfgURL (Note: This symbolic name is very important because server side business component code relies on this name)
   - URL: http://OracleConfigurator/OA_HTML/CfgSebl.jsp
   - Choose the host name: for example qapache.us.oracle.com:3710
   - Fixup Name: Default
   - SSO Disposition: IFRAME

d. In the lower applet, add arguments to the URL as follows:

   Create a new record with the following values:

   - Name: InitMessage
   - Req Arg: checked
   - Argument Type: Profile Attribute
   - Argument Value: CZInitMessage
   - Append as argument: checked

   Add another new record with the following values:

   - Name: PostRequest
   - Required Arg: Checked
   - Argument Type: Command
   - Argument Value: PostRequest
   - Append as argument: Not-Checked

   Complete the following two steps to set up the SSO login into Oracle Applications. The SSO login is the preferred style to access Oracle Applications. If the SSO login is not set up, then the Siebel end user must know and enter Oracle login credentials at the login page.

e. *For the next two arguments enter the values for Argument Value as specified.* UserLoginId and UserLoginPassword are function names used by Siebel SSO. These functions look up the Oracle login credentials for the current Siebel User. Putting anything else in requires that you log in to an Oracle Applications for Configurator session.

f. Continue to add arguments to the same URL with the following values:

   - Name: username
   - Required Arg: Checked
   - Argument Type: Command
   - Argument Value: UserLoginId
   - Append as argument: Checked

g. Add the final argument with the following values:

   - Name: password
   - Required Arg: Checked
   - Argument Type: Command
   - Argument Value: UserLoginPassword

- Append as argument: Checked

h. Select SSO Systems Admin List and add a record in the upper applet with the following values:
   - System Name: OracleConfigSSO
   - Symbolic URL Name: OracleCfgURL
   - Description: Logs in to the Oracle Configurator

i. In the lower applet, SSO System Users add records for the Siebel users who invoke Oracle Configurator. The Siebel usernames are paired with Oracle login credentials. An example follows:
   - Siebel Login Name: sadmin
   - Login Name: operations
   - Password: welcome

3. Navigate to the Administration - Server Configuration screen, Servers, and then the Components view. Select the eCommunications Object Manager (ENU) component and select the Order Management - Enable Asset Based Ordering parameter and set this value to False to call Oracle Configurator instead calling Siebel Configurator.

   Select the HTIM Object Manager (ENU) component and select the Order Management - Enable Asset Based Ordering parameter and set this value to False to call Oracle Configurator instead of calling Siebel Configurator.

   The following workflows must be active in the Design Repository for Configurator to work:

   - Account - New Quote
   - Account - New Order
   - Goto*
   - PSP*
   - Product Compatibility*
   - Product Eligibility*
   - Product Reco*
   - *Pric*
   - Compatibility Multiple Popup Workflow
   - Config*
   - Check*

   These workflows are *not* workflows that were introduced as part of Oracle Configurator integration, but are existing ones.

Adding Siebel Custom Applications to Oracle Applications

Several custom Oracle Applications must be created to allow models to be accessed from Siebel. These custom applications are used during the publication phase of Oracle Configurator Model development cycle.

To add Siebel Custom Applications to Oracle Applications

1. Log in to Oracle Applications with credentials that have the Sys Administrator privilege.
2. Choose Application, then Register.

   Forms starts up, and the form page appears. If not, then navigate to the form.
3. Create three new entries each with four values as follows:

- Siebel Quote Integration |SEBLQ | DUMMY_TOP | Provides integration between Siebel Quote and Oracle Configurator
- Siebel Order Entry Integration | SEBLO | DUMMY_TOP | Provides integration between Siebel Order Entry and Oracle Configurator
- Siebel Agreement Integration | SEBLA | DUMMY_TOP | Provides integration between Siebel Agreement and Oracle Configurator

The new applications now must be added to Oracle Configurator Publication Applicability list.

4. Change responsibility to Configurator Administrator.
5. Choose Application to Publication Applicability List and add the applications.

   This step runs a concurrent program. After the program runs, these new applications are available during model publication.

See the Oracle documentation for Configurator for the entire process of developing models for calling applications.

Copy Config Web Service Setup

Use the following procedure to copy the Config Web Service setup.

To copy the Config Web Service setup

1. Log in to the eCommunications/HTIM application from a browser.
2. Navigate to the Administration- Web Services screen, then the Outbound Web Services view.
3. Query for the ESB_ConfiguratorCopyConfigEbizAdapter_Service Web service.
4. Query for ConfiguratorUserLangSiebelAdapter.

   Note: The preceding steps apply to seed data. Perform them when exporting the seed data.

5. Change the IP Address on the Service Ports (middle applet) for each of the Web Services.

Copy Config Data Map Setup

Use the following procedure to copy the Config Data Map setup.

To copy the Config Data Map setup

1. Log in to eCommunications/HTIM application from a browser and navigate to the Administration - Application screen, then the Data Map Administration view.
2. For the following Data Maps, add three columns (External Configurator Reference 1, External Configurator Reference 2, and External Configurator Reference 3) to both the Source and the Destination Column in Data Map Field section for the Data Map Component specified in the parenthesis:
   - AutoAgreement (Data Map Component:Line Item)
   - AutoAgreeFromOrder (Data Map Component Name:Line Items)
   - CopyOrder (Data Map Component Name:Line Item)
   - CopyQuote (Data Map Component Name:Line Item)
   - OrderToTemplate (Data Map Component Name:Line Item)
   - QuoteToSalesOrder (Data Map Component Name:Line Item)
   - QuoteToServiceOrder (Data Map Component Name:Line Item)
   - QuoteToTemplate (Data Map Component Name:Line Item)

- ReviseAgreement (Data Map Component Name:Line Item)
- ReviseOrder (Data Map Component Name:Line Item)
- ReviseQuote (Data Map Component Name:Line Item)
- TemplateToOrder (Data Map Component Name:Line Item)
- TemplateToQuote (Data Map Component Name:Line Item)

DoCompression Parameter Setup

Use the following procedure to complete the DoCompression parameter setup.

To complete the DoCompression parameter setup

1. Stop the Siebel Server.
2. Launch Siebel Management Console and modify the following settings under Application Interface.
3. Reset the DoCompression parameter in the [defaults] section to FALSE.
4. Restart the computer.

> **Note:** Restarting the Siebel Server is not sufficient.

Applying Changes for the Signal

Use the following procedure to apply changes for the signal.

To apply changes for the signal

1. Navigate to the Administration - Order Management screen, then the Signals view.
2. By locking the signal and clicking the Workspace, change the following signal sequences and release the signal.

   For the CalculateShippingAndTax signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWISendCalculate ShippingCharge	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Order
ISS Tax Calculation Service	Business Service	2	None	Yes	Order
ISS Shipping Calculation Service	Business Service	3	None	No	Order
ISS Tax Calculation Service	Business Service	2	None	Yes	Quote
ISS Shipping Calculation Service	Business Service	3	None	Yes	Quote

For the CreditCardAuthentication signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWISendPayment Authorization	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Payment
ISS Credit Card Transaction Service	Business Service	2	None	Yes	Payment
ISS Credit Card Transaction Service	Business Service	2	None	Yes	Quote

For the RunCreditCheck signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWISendCreditCheck	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Payment
ISS Credit Check Service	Business Service	2	None	Yes	

For the ATPInquire signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWISendATP CheckLine	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Order
ISS ATP Service	Business Service	2	None	Yes	

For the ATPInquireAll signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWISendATP Check	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Order

Service Name	Service Type	Seq.	Condition	Active	Mode
ISS ATP Service	Business Service	2	None	Yes	

For the Customize signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
SWI Configurator Load	Workflow	1	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	

For the QuotesAndOrdersValidate signal, modify the sequence records in the following table.

Service Name	Service Type	Seq.	Condition	Active	Mode
PSP Driver Workflow Process	Workflow	1	None	Yes	Order
PSP Driver Workflow Process	Workflow	1	None	Yes	Order
Verify Header (Order)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")<>"TRUE"	Yes	Order
Oracle Verify Header (Order)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Order
Verify Item (Order)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")<>"TRUE"	Yes	Order
Oracle Verify Item (Order)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Order
PSP Driver Workflow Process	Workflow	1	None	Yes	Quote
PSP Driver Workflow Process	Workflow	1	None	Yes	Quote

Service Name	Service Type	Seq.	Condition	Active	Mode
Verify Item (Quote)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")<>"TRUE"	Yes	Quote
Oracle Verify Item (Quote)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Quote
Verify Header (Quote)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")<>"TRUE"	Yes	Quote
Oracle Verify Header (Quote)	Workflow	2	SystemPreference ("Enable AIA OrderToCash")="TRUE"	Yes	Quote

Fixing State Model for Quote Status

To make Quote Status work, you can extend the related State Model activation date.

To fix the state model for Quote Status

1. Navigate to the Administration - Application screen, then State Models view and search for TNT SHM Quote Status.
2. Extend its activation date until 2020 (leave day and month as sysdate).

Other Order-to-Cash Configuration Steps

Use the following procedure to complete other order-to-cash configuration steps.

To complete other order-to-cash configuration steps

1. Inactivate the field map by completing the following steps:
   a. Navigate to the Administration - Application screen, then the Data Map Administration view and query for a Data Map Object of ReviseOrder, a Data Map Component of Header, and a Data Map Field of Back Office Process Status.
   b. Inactive this field map by selecting the Inactive check box.
2. Restart the Siebel Server.
3. Launch the Siebel Communications application.

Performing Required Tasks for the Communications PIP

The tasks in this topic are required if you are using the Communications PIP.

Enabling Dynamic Pricing

Customers with the 'Dynamic Pricer' license must undertake the steps mentioned in the document to enable the execution of 'Dynamic Pricing Procedure'.

To leverage the dynamic pricing procedure, customers have to perform following changes to the existing repository.

The Siebel pricing module is available in multiple licensing modes and each mode is associated with either the 'Basic Pricing Procedure' or the 'Dynamic Pricing Procedure'.

Basic Pricing Procedure

Note the following information about this procedure:

- This procedure mimics the basic Siebel Pricer functionality that was available in Siebel version 7.7 applications.
- Basic Siebel Pricer functionality includes list price, volume discounts, and service pricing.
- It leverages the variable maps that do not contain the XA child variable maps.

Dynamic Pricing Procedure

Note the following information about this procedure:

- This procedure provides the complete pricing capabilities such as attribute pricing, promotions, aggregate discounts, and so forth.
- It leverages the variable maps that contain the XA child variable maps.
- It is available only to those customers that have the 'Dynamic Pricer' license.

To enable dynamic pricing

1. If you are running Siebel applications version 8.1.1 or later, then navigate to the Administration - Pricing screen, then the Price Lists view, click the menu button and then select Enable Dynamic Pricing.
2. If you are running Siebel applications versions prior to 8.1.1, then you must manually modify the signals.

Running EIM Data Migration for Comms

This topic defines the detailed steps to run the EIM jobs for Siebel applications as a part of the Creating and Updating Credit Alerts for Collection Flows functionality. The ODI interface is triggered to transport the required data for creating and updating Credit Alerts from Oracle Communications Billing and Revenue Management into the Siebel EIM tables. EIM scripts are then executed to load the data into the SFA base tables.

Before you begin your import, note the following:

- Make sure that the Siebel Server is up and running.
- Make sure that the Siebel EIM component is online and running properly. Navigate to the Administration - Server Configuration and Administration - Server Management screens.
- To avoid data loss, do not restart the Siebel Server while the EIM job is running.
- After you have completed loading data for one country, make a backup copy of the EIM log files for status verification. (These log files are located under `siebsrvr/logs`.)

Use the following procedure to execute the EIM job to create and update credit alerts.

To execute the EIM job to create and update credit alerts

1. Run the EIM job with the ProcessAlertsAndBillingProf.ifb configuration file.
2. Verify that the EIM job is successful.

> **Note:** If the Order-to-Cash PIP is enabled, then the Asset-Based Ordering parameter for the corresponding object manager for the application has to be set to False.

This topic describes the integration user setup process. A new flag has been introduced to identify an integration user (needed while integration testing). This user credential needs to be configured (on the Oracle Application Integration Architecture side) for the Siebel Inbound Web services call from the Oracle Application Integration Architecture side to avoid the boomerang effect.

Configuring the Email Notification for the Product Class and Attribute Query Feature

Users to whom emails must be sent must be added to the user list.

To add or change the email addresses for the user list

1. Navigate to the Administration - User screen, then the Users view.
2. Add user name and user ID.
3. Add the email address in the contact information of the child applet.
4. Navigate to the Administration - Group screen, then the User Lists view.
5. Query for the SCE Users user list. If it does not appear, then create it.
6. Add the users created in the user list.

Add Changed User List

The created user list is passed in the run-time events. Use the following procedure to add the changed user list.

To change the BO/BC/Field name to extract the email addresses

1. Navigate to the Administration - Run Time Events screen, then the Action Sets view.
2. Query for the EmailNotify action set.
3. Query for the 'GetEmailAddr' action in the child applet.
   The following is the business service context syntax:

   ```
   "Parent BC Record Name";"Field Name in Child BC";"BO Name";"Parent BC";"Child BC"
   ```

   For example:

   ```
   "SCE Users";"Email Address";"Account";"Account";"Contact"
   ```

   ```
   "SCE Users";"EMail Addr";"User List";"User List";"User"
   ```

   The following run-time events use this action set.

Sequence	Object Type	Object Name	Event	Subevent	Action Set Name
1	BusComp	Attribute VOD BusComp	PreInvokeMethod	SendEmail	EmailNotify
2	BusComp	ISS Class VOD BusComp	PreInvokeMethod	SendEmail	EmailNotify
3	BusComp	ISS Joint Workspace BusComp	PreInvokeMethod	SendEmail	EmailNotify

Edit or Configure Email Templates

Four communications templates are used to send email messages. The Attribute Defn and Product Class templates are already configured. Use the following procedure to configure or edit other templates.

To edit or configure email template text

1. Create a Notepad file called Attribute_Template.txt and add the following values:
    - Attribute Name: [Name]
    - Description: [Description]
    - Type: [Type]
    - Object Number: [Object Number]
    - XRef Class Name: [XRef Class Name]
2. Create a Notepad file called Class_Template.txt and add the following values:
    - Class Name: [Name]
    - Description: [Description]
    - Type: [Type]
    - Object Number: [Object Number]
3. Create a Notepad file called attr_email_notification_template.txt and add the following values:

```
Attribute Version Details

========================

_____________________________________________________

| Effective Start Date : [Required Start Date]

|

| Effective End Date : [Required End Date]

|

| VOD Version Number : [Version]

_____________________________________________________
```

4. Create a Notepad file called class_email_notification_template.txt and add the following values:

```
Product Class Version Details

============================

_____________________________________________________

| Effective Start Date : [Required Start Date]

|

| Effective End Date : [Required End Date]

|
```

```
| VOD Version Number : [Version]

_____________________________________________________
```

5. Navigate to the Administration - Communication screen, All Templates, and then the Template Items view.
6. Query for Workspace Attribute Defn Template, and complete the following steps:
   a. In the Template Items view, attach the Attribute_Template.txt file created in Step 1 in the template item.
   b. Select ISS Joint Workspace VOD Pick BusComp from Iteration Child Business Component.
   c. Select the Substitute Values and Message Body check boxes, and save the template Item.
7. Query for Workspace Product Class Defn Template, and complete the following steps:
   a. In the Template Items view, attach the Class_Template.txt file created in Step 2 in the template item.
   b. Select ISS Joint Workspace VOD Pick BusComp from the Iteration Child Business Component.
   c. Select the Substitute Values and Message Body check boxes, and save the template Item.
8. Query for Attribute Defn Template, and complete the following steps:
   a. In the Template Items view, attach the attr_email_notification_template.txt file created in Step 3 in the template item.
   b. Select SWI Attribute Versions BusComp (Notify) from the Iteration Child Business Component.
   c. Select the Substitute Values and Message Body check boxes, and save the template item.
9. Query for Product Class Template, and complete the following steps:
   a. In the Template Items view, attach the class_email_notification_template.txt file created in Step 4 in the template item.
   b. Select SWI Attribute Versions BusComp (Notify) from the Iteration Child Business Component.
   c. Select the Substitute Values and Message Body check boxes, and save the template item.

   The communication template names are added in the user properties of the business components in the following table.

Business Component	User Property	Template Name
ISS Joint Workspace BusComp	PackageNameList|Attribute Definition	Workspace Attribute Defn Template
ISS Joint Workspace BusComp	PackageNameList|Product Class Definition	Workspace Product Class Defn Template
Attribute VOD BusComp	PackageNameList	Attribute Defn Template
ISS Class VOD BusComp	PackageNameList	Product Class Template

Add SMTP Server Name, From Email Address, and POP Server Details

The SMTP Server name, From Email Address, and POP server details are added in the Communication profile. Use the following procedure to add the SMTP server name, From Email Address, and POP server details.

To change the SMTP Server name, From Email Address, and POP server details

1. Navigate to the Administration - Communications screen, then the Communications Drivers and Profiles view.
2. Query for the Internet SMTP/POP3 Server communication driver, and if it does not exist, then create it, using the following values:
    - Name: Internet SMTP/IMAP Server
    - Channel Type: Email
    - Channel String: POP3SMTP
    - Library Name: sscmmail
    - Outbound: Yes
3. Query for Default SMTP in child applet. If it does not exist, then create it.
4. Change the SMTP and POP Server details in the grandchild applet, using the following values:
    - From Address: siebel.product.admin@demohost.siebel.com
    - POP3 Account Name: support
    - POP3 Account Password: support
    - POP3 Server: demohost.siebel.com
    - SMTP Server: rgmamersmtp.oraclecorp.com

    The communication profile is added in the user properties of the business components in the following table.

Business Component	User Property	Template Name
ISS Joint Workspace BusComp	CommProfileOverride	Default SMTP Profile
Attribute VOD BusComp	CommProfileOverride	Default SMTP Profile
ISS Class VOD BusComp	CommProfileOverride	Default SMTP Profile

Set Up Time-Based Offering Feature

Use the following procedure to set up the time-based offering feature

To set up the Time-Based Offering feature

1. Create Product Master Data by completing the following steps:
    a. Create the following attributes:
        - Duration (Number. Enumerated, values 1, 2,3, … 31)
        - DurationUnitOfMeasure (Text. Enumerated values: Days, Months, Years)
        - DurationValidityStart (Text. Enumerated Values: Original Start, Now, Original End)
    b. Create a class with these three attributes.

> **Note:** The Class attributes names and the attribute definition names must be identical.

c. For the TBO Discount products synced from Oracle Communications Billing and Revenue Management, change the Structure type to Customizable and the Product Type to Time Based Offer, and associate the TBO class to this product.

2. Create Job to Inactive Assets by completing the following steps:
   a. Navigate to Server Management, and then Jobs, and create a new Job as follows:
      - Select Component as Workflow Process Batch Manager.
      - Select Repeating as Y.
      - Select Requested Server as the Siebel Server.
      - Select Repeat Unit as Days.
      - Select Repeat Interval as 1.
      - Select Repeat From as Scheduled Start.
   b. Navigate to Job Parameters and create a new parameters.
   c. Select Name as Workflow Process Name and specify the Value of SWI Asset Status Update.
   d. Select Name as Search Specification and specify the Value if necessary.
3. Create Revision Data Maps by completing the following steps:
   a. Navigate to Administration – Application, then the Data Map Administration view.
   b. In Data Map Object, query for Name of Revise Order or ReviseQuote.
   c. In Data Map Component, query for Name of Line Item.
   d. In Data Map Field, add the fields to be copied during revision (such as Service End Date, Service Start Date, and Due Date).
4. Configure the business service.

   The business service name must be specified as the value for the Business Service Query Access List server component parameter.

   For example, if the server component is eCommunications Object Manager (ENU), then go to its parameters and query for Name of Business Service Query Access List and add Value of CMU External Integration Service. Then, the server component can be restarted to take effect after the change in the component parameter value.

Performing Required Tasks for the Master Data Management PIP

The tasks in this topic are required if you are using the Master Data Management PIP.

Activating the Workflow Policies

To activate the workflow policies, follow this procedure.

To activate the workflow policies

1. Navigate to Administration - Business Process screen, then Workflow Policies view.
2. Query for the following workflow policies and remove the Expiration date:
   - SWI Account Address Sync Policy
   - SWI Account Contact Sync Policy

- SWI Account Sync Policy
- SWI Address Sync Policy
- SWI Contact Address Sync Policy
- SWI Contact Sync Policy

3. Remove the existing Triggers.
4. Generate the Triggers.
5. Restart Siebel Services.

By default, the Workspace Release Flag user preference is set to N. If you want to release products into the Siebel application automatically, then you must change this preference.

Customizing the Workspace Release Flag

To customize the Workspace Release flag, follow this procedure.

To customize the Workspace Release flag

1. Navigate to the Administration - Application screen, then the System Preferences view.
2. Query for 'Workspace Release Flag', set the value to N, and restart the server.

3 Accounts in Siebel Communications

Accounts in Siebel Communications

This chapter defines some basic concepts about accounts. It also provides the procedures for setting up account hierarchies and updating account information. It includes the following topics:

- *About Accounts in Siebel Communications*
- *Scenario for Using Accounts in Siebel Communications*
- *Setting Up External Organizations for Siebel Communications*
- *Creating an Account in Siebel Communications (End User)*
- *Creating an Account Hierarchy in Siebel Communications (End User)*
- *Reviewing an Account Hierarchy in Siebel Communications (End User)*
- *Accessing or Updating Account Information in Siebel Communications (End User)*
- *Monitoring Infrastructure, Equipment, and Usage in Siebel Communications (End User)*

About Accounts in Siebel Communications

Administrators, such as call center administrators, sales administrators, and sales managers, benefit from reading this chapter. It describes how customer service representatives (end users) enter information into the accounts screens, which form the hub of customer information. After becoming familiar with the end-user procedures, you can customize the software to fit the needs of your company.

An *account* is any external organization with which your company does business. It negotiates agreements, receives service and bills, and raises trouble tickets. An account is usually the central entity of a Siebel CRM implementation. After adding accounts in Siebel Communications, end users at your company contribute information for tracking customer service, processing requests, viewing agreements, and so on.

Account Hierarchy

A single account for each customer probably meets your company's needs to track the accounts of residential customers. However, for large commercial clients, end users can build an account hierarchy. An *account hierarchy* is a multilevel structure reflecting parent-child relationships within the organization.

Within a complex account hierarchy, an account usually represents one of the following entities:

- A customer, prospective customer, or household
- An individual service or billing account
- An aggregate account for billing or service accounts
- A division in an organization
- An entire organization

Hierarchies can accommodate subsidiaries and complex organizations that have, for example, a world headquarters, multiple regional headquarters, and many branch locations, each with its own service and billing requirements.

This multiple-level structure supports a hierarchical view of the customer. Separate child accounts can be used to designate which information pertains to one subsidiary or another within the organization.

A hierarchy has the following further advantages:

- It allows you to maintain customer information, such as address and contact name at each point in the hierarchy.
- It aids in specifying usage and billing roll-up relationships.
- It allows you to create and maintain aggregation points and to support complex discounting methods.

To fully support mergers, demergers and corporate restructuring, Siebel Communications automatically updates the master account or parent account of an account record and its children when the changes are made to the account hierarchy. In particular, it is possible to change the parent of a child account if that subsidiary is sold to another holding company, or to change the parent of a whole organization if it is purchased by another entity. These changes take effect by changing the parent account of the account record.

Account Classes

An *account class* is a method for classifying an account according to its position and role in an account hierarchy. When setting up the hierarchy, end users define parent-child relationships among the accounts. Then they designate which account class applies to each new account, according to your customer's requirements and organizational structure.

For example, with communications companies, it is common for the service to be delivered to one subsidiary while bills get sent to another subsidiary. Separate accounts are created for each subsidiary, one with the account class service and the other with the account class billing to reflect their different functions. An account given the account class service generally stores service item information and allows end users to analyze the customer's usage or orders. An account given the account class *billing* generally stores information for the financial transaction or invoice.

Siebel Communications does not restrict parent-child associations by using the account class. Any class can be a child of any other class. For example, a customer account can be placed anywhere in the hierarchy, and a billing account can be the parent or the child of a service account. To enforce hierarchy rules by using the account class, you must set them up through state models. For more information about state models, see *Siebel Business Process Framework: Workflow Guide* .

By default,Siebel Communications provides the following classes for accounts:

- **Customer Class.** An account with this class represents the actual customer, person, or organization that is receiving service. A *customer account* includes basic customer information, such as the company name and headquarters address. It can receive both service and bills.
- **Service Aggregator Class.** An account with this class receives aggregate usage details for all of its subsidiary accounts. It can be anywhere in the account hierarchy. It allows you to generate and view multiple service accounts that share some specifications.

  Implementation example: A company has three offices in different states, and each office receives a wired phone service and a mobile phone service. Each office can have both services set up as separate service accounts, with each office set up as a service aggregate account for the services.
- **Service Class.** An account with this class receives service, but not bills. In the account hierarchy, it is the account level at which the physical delivery of the service or product occurs. It can represent a person or organization with multiple service addresses.

- **Billing Aggregator Class.** An account with this class receives aggregate billing details for all of its subsidiary accounts. It can be anywhere in the account hierarchy. It allows you to generate and view multiple billing accounts that have some of the same specifications. It can be set up to bill the customer by using certain requests, such as creating bills for the different services and rolling those separate billing statements into a billing aggregate account. It also allows you to create and maintain billing aggregation points and to support complex discounting methods. It receives and aggregates bills.

  Implementation example: A company has offices in different states, and each office receives services two different services: broadband TV and broadband Internet. Each office can have both services set up as separate billing accounts, and each office can be set up as a billing aggregate account for the services. Then the corporate headquarters can be set up as a billing aggregate for the three offices and a single payment can be made for the services.
- **Billing Class.** An account with this class is used to invoice the customer for products and services. In the account hierarchy, it is the account level at which the financial transactions for the service or product occur. It shows the collection of all charges applied to a customer in a given time frame for which the customer must submit payment.

Siebel Communications displays the following information that is based on the account class:

- The Service Account and Billing Account Explorers filter on account class.
- In the Quotes and Order Entry views, only those accounts with the appropriate account class appear in the dialog box for association.

Note: You can set up additional account classes or rename the default classes. However, when renaming, be careful to also rename the explorers because they filter accounts on class names. For information about modifying account classes, see *Siebel Applications Administration Guide* .

The following image shows an example of an account hierarchy in which parent-child relationships are established along service and billing account classes. In the following image, Customer Account has the following children:

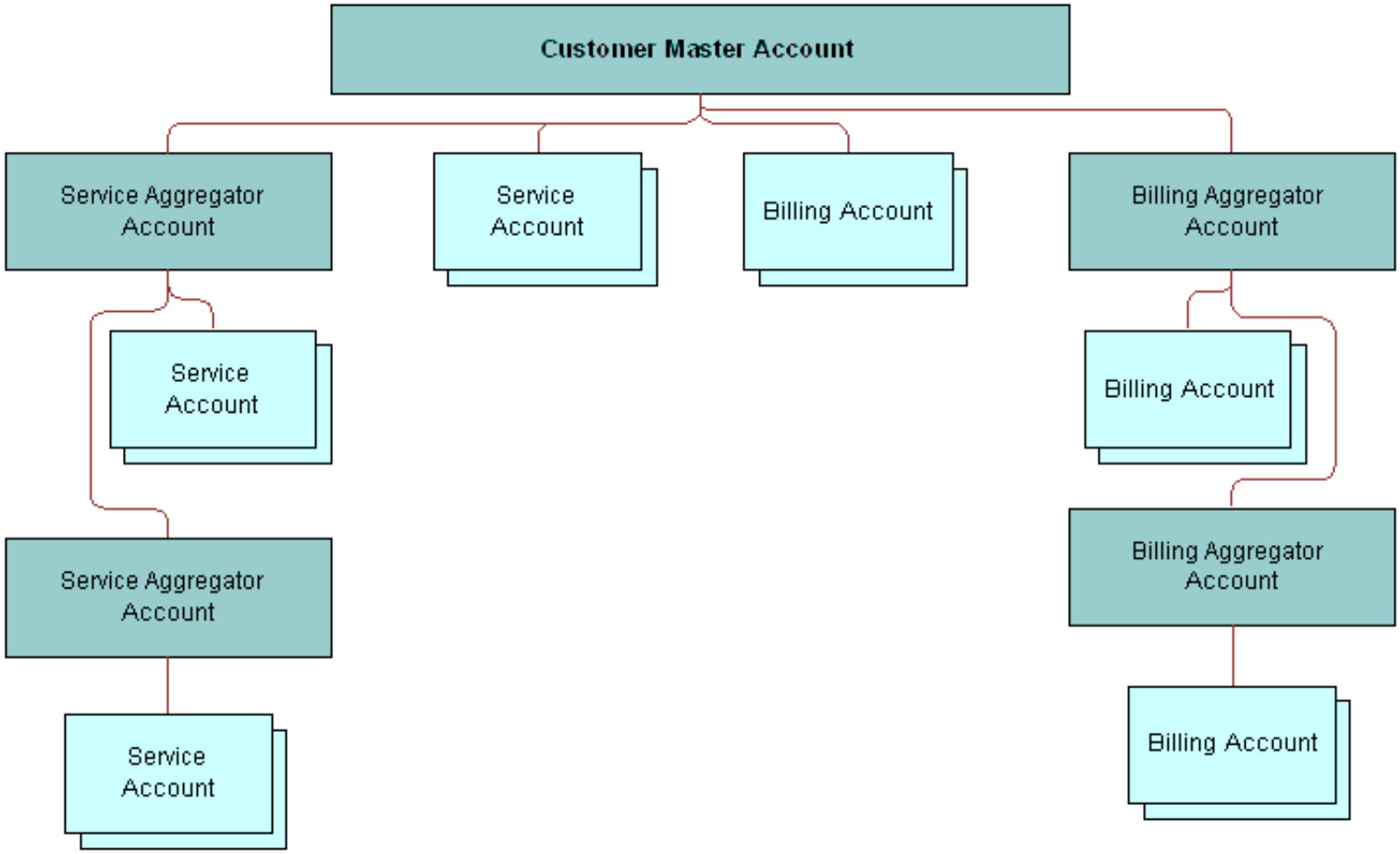
- Service Aggregator Account

  Service Aggregator Account has the following children: Service Account and Service Aggregator Account.

  Service Aggregator Account has the following child: Service Account.
- Service Account
- Billing Account
- Billing Aggregator Account

  Billing Aggregator Account has the following children: Billing Account and Billing Aggregator Account.

  Billing Aggregator Account has the following child: Billing Account.



Account Roles and Responsibilities

Sales administrators and sales managers usually oversee the creation and maintenance of accounts by their teams. All team members (end users) can create an account and update account information.

The following information lists the roles and responsibilities related to account procedures.

Role	Description
Administrator	Sales administrator or sales manager • Determines what information is required for an account. • Determines what account information is visible to each member of the sales force. • Reviews and analyzes account activity to measure performance and improve sales effectiveness. • Reviews account hierarchies developed by the sales staff.
End User	Customer service representative

Role	Description
	• Performs call center activities, primarily responding to customer inquiries and sales order requests. • Creates accounts for new customers, including the required key information for an account. • Updates accounts for existing customers. • Understands relationship between accounts and associated contacts. • Creates account hierarchies. • Understands account hierarchies and relationship of accounts within hierarchy.
	Sales representative • Focuses on outside sales and customer relationship management. • Creates accounts for new customers, including the required key information for an account. • Updates accounts (such as creating a sales opportunity), creates sales orders, and tracks service requests or trouble tickets. • Creates account hierarchies, designating parent-child relationships among an organization's accounts.

Scenario for Using Accounts in Siebel Communications

This topic gives one example of how accounts might be used. You might use accounts differently, depending on your business model.

A customer service representative (CSR) receives a call from a prospective customer. The inbound call is arbitrarily routed to the CSR, since IVR (Interactive Voice Response) is unable to locate the account.

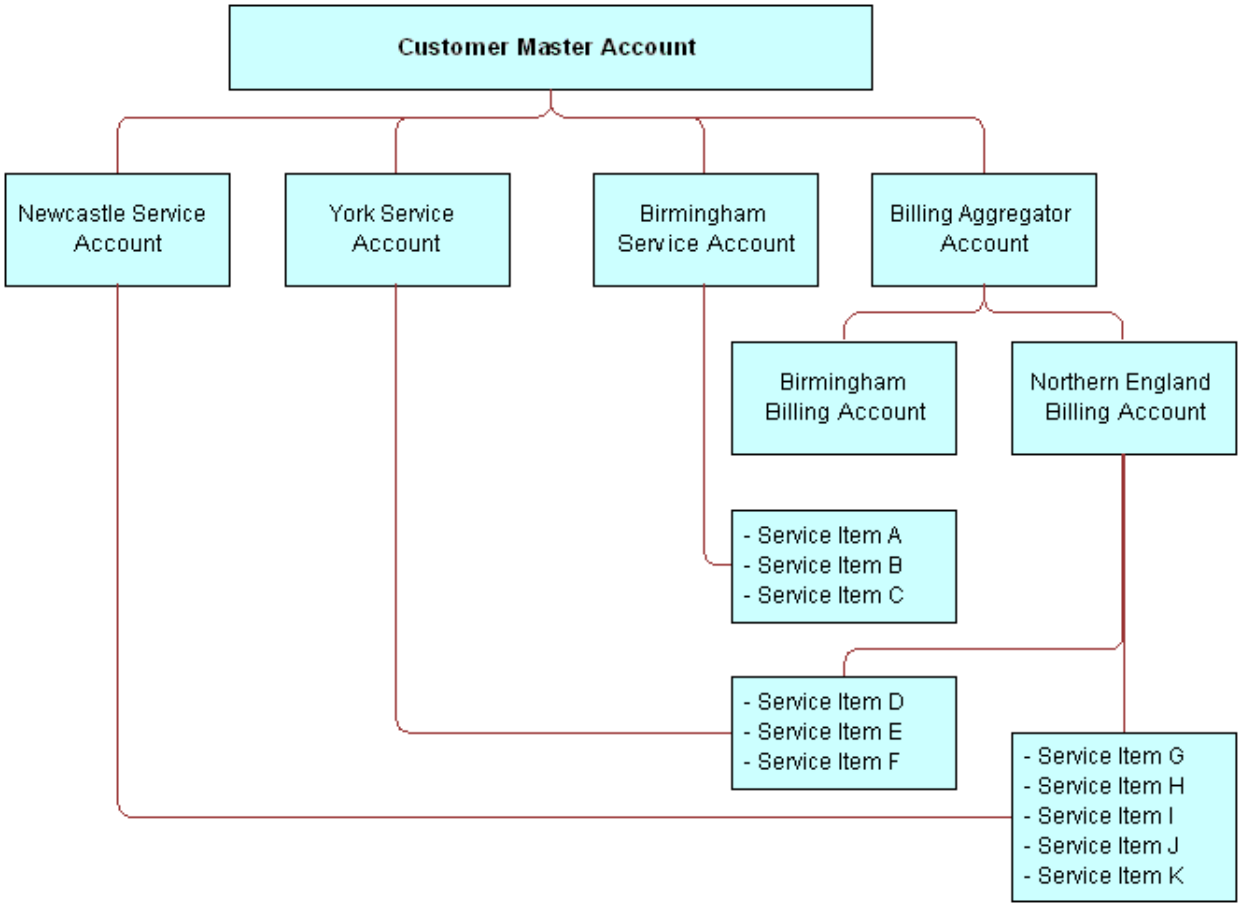
The caller explains that he is the owner and CEO of a small company that develops specialized software for the high-tech industry. He wants to use the CSR's company as its sole provider.

The CSR first verifies that no account currently exists for the caller and then gathers the following information about the caller's company:

- It has the following service locations:
  - The headquarters or administrative office is located in Newcastle, England.
  - A development office is based in York.
  - A sales office is located in Birmingham.
- All services for the Northern England offices (Newcastle and York) are to be billed on a single invoice. However, each location is to receive a statement.
- The Birmingham site is to receive its own invoice.
- The caller wants a discount that is based on all the services he has at all three locations, and he wants to receive a statement for all services.

The following image shows the account hierarchy that the CSR creates. Using this hierarchy, the CSR must set up the following information to establish service for the caller:

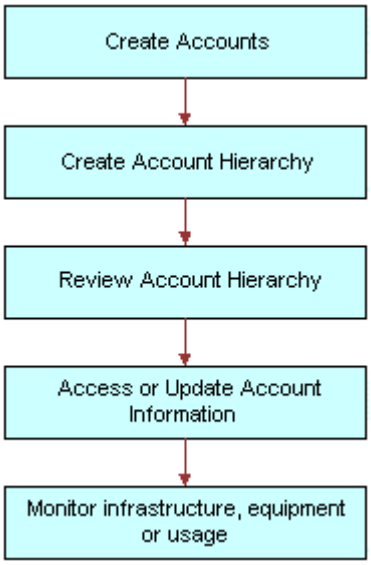
- One Customer Master account for the entire company.
- Two billing accounts as follows: Birmingham Billing Account and Northern England Billing Account.
- Three service accounts as follows: Newcastle Service Account, York Service Account, and Birmingham Service Account.
- One Billing Aggregator Account for both billing accounts so that a complete statement can be invoiced.



Next, the CSR receives a call from a customer who wants to add broadband Internet service to his account. The CSR accesses the customer's account and updates the information. While on the phone with the customer, the CSR checks the existing infrastructure to verify that the service is available in the customer's neighborhood.

The following image shows the sequence of procedures an end user might perform to manage accounts. The steps in the sequence are as follows:

- Create Accounts.
- Create Account Hierarchy.
- Review Account Hierarchy.
- Access or Update Account Information.
- Monitor infrastructure, Equipment or Usage.



Setting Up External Organizations for Siebel Communications

Administrators must set up external organizations to create the values that can appear in external organization fields in the Siebel application. For more information about external organizations, see *Siebel Security Guide* .

External organizations appear in the dialog box that appears when an end user enters a value in an external organization field. The following information lists some fields for external organizations.

Screen	View	Field
Accounts	Equipment, Other Equipment	Supplier
Accounts	Infrastructure	Owner
Premises	Infrastructure	Owner
Work Orders	Work Order List	Provider

Creating an Account in Siebel Communications (End User)

You can enter detailed information about customers in an account. After adding accounts in Siebel Communications, end users can contribute information for tracking customer service, processing requests, viewing agreements, and so on.

Adding an Account Record

To add an account record in Siebel Communications, follow this procedure.

To add an account record

1. Navigate to the Accounts screen, then the Accounts List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Site	Type a description of the location or function of the account, such as **headquarters**, **corporate,** or **San Francisco**.
Account Team	Select the user ID of the team for the account. This field determines who can access information about the account.
Account Class	Select the class for the account. Account classes distinguish an account within an account hierarchy when dividing accounts into billing or service accounts. The Billing Account Explorer and Service Account Explorer views filter using this field. Also, account classes determine the accounts available for association in the Quotes and Entry views. Select a value of Customer in this field when you create a residential customer account. For more information about account classes, see *About Accounts in Siebel Communications*.
Address	Select the addresses for the account. You can also enter a new address for the account. In the Account Addresses dialog box, the Premise check box indicates when the address is a premises.
Good Standing	Select this check box to indicate when the account is centrally blocked and certain activities cannot be performed for it. This field is not the same as the status of the account.

Field	Comments
Synonyms	Select other names for the account. This field allows you to refer to accounts (and their sites) in the way that you prefer. For example, an account named A/B Products, Inc., might have the following synonyms: AB, A/B, and AB Products. When you search for an account or enter an account in another part of Siebel Communications, you can use a synonym instead of the actual name.
Lock Assignment	Select this check box if you do not want Assignment Manager to run for the account. If you do not select this check box, then Assignment Manager can reassign the account to another team according to the account territory. For example, if you want to allow the same account manager to handle a commercial account with three different locations, then even though two of the locations are in another account manager's territory, do not select this check box.

Creating an Account Hierarchy in Siebel Communications (End User)

Creating an account hierarchy includes creating child accounts and associating them with a parent account. You must create the parent account before adding child accounts. For information about creating an account, see *Creating an Account in Siebel Communications (End User)*.

Note: For mergers or acquisitions, end users can move the entire hierarchy under a new account. Be sure to associate the new parent account with the first (top) level. The new parent ID automatically cascades to its child accounts, reflecting the change. For more information, see *Changing a Parent-Child Account Relationship*.

Setting Up an Account Hierarchy

To create an account hierarchy, follow this procedure.

To create an account hierarchy

1. Navigate to the Accounts screen, then the Accounts List view.
2. Add a record for each child account, and complete the necessary fields.
3. In the Parent field, select the parent account.

Changing a Parent-Child Account Relationship

To change parent and child account relationship in an account hierarchy, follow this procedure.

To change a parent-child account relationship

1. Navigate to the Accounts screen, then the Accounts List view.
2. In the Accounts list, select the child account.
3. In the Parent field, select a different parent account.

Reviewing an Account Hierarchy in Siebel Communications (End User)

End users can review the entire account hierarchy to check its structure.

Viewing the Hierarchy for Accounts

To view the hierarchy for an account, follow this procedure.

To review the hierarchy for an account

1. Navigate to the Accounts screen.
2. Complete one of the following steps:
   - To review the hierarchy for billing or service accounts, navigate to Billing Account Explorer view or the Service Account Explorer view, and then expand the subfolders in the explorer tree.

     The explorer view contains only those accounts for the designated account class, including corresponding aggregator accounts.
   - To review all account hierarchies, navigate to the Account Management view, and then expand the subfolders in the explorer tree.

     The explorer view displays accounts under the subfolders Accounts (shows all child accounts, regardless of class), Billing Accounts, and Service Accounts.

Viewing an Account Hierarchy as an Organization Chart

To display an account hierarchy as an organization chart, follow this procedure.

To view the account hierarchy as an organization chart

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Account Hierarchy view tab.
4. Scroll down to view the organization chart showing the account hierarchy.

Viewing Child Accounts for Parent Accounts

To display a list of child accounts for a parent account, follow this procedure.

To view a list of child accounts

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Account Hierarchy view tab.
4. Scroll down and select Account Org Hierarchy from the Show drop-down list.
   A list of child accounts appears.

Accessing or Updating Account Information in Siebel Communications (End User)

Siebel Communications allows end users to access the same account information through different views. Specific views allow end users to find the information most relevant to them, according to the procedure they want to perform at that moment.

Most views allow end users to record interactions with a customer and to update the customer's information. The functionality available to end users depends on the end user access rights.

From all views, end users can access information about billing, service, quotes, agreements, contacts, and so on.

The end-user views follow:

- **Customer portal view (call center agent).** While talking to the customer, call center agents generally need an overview of a customer's account. The customer portal view allows them to access the most commonly needed information in a compact presentation.
- **Account views (sales representative).** Sales representatives access the same account information as call center agents, but they might do it through the Account views. Each view displays a specific piece of account information. For example, while preparing a report, a sales representative might want to review the usage details or order history for an account. The sales representative does not need the account overview information available in the customer portal because the representative is normally not talking to the customer on the telephone while reviewing information for the report.

Accessing the Customer Portal View

To access the Customer Portal view, follow this procedure.

To access the Customer Portal view

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
   The Customer Portal view appears with several lists and forms summarizing the account information.

Accessing Account Views

To access the Accounts screen's views, follow this procedure.

To access the account views

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click a view tab to access specific information for that account.

Viewing Agreements for Accounts

To display the agreements that are associated with an account, follow this procedure.

To view an agreement for an account

1. Navigate to the Accounts screen, then the Agreement Accounts Explorer view.
2. In the explorer tree, expand the folder for the account.

   Subfolders appear for the selected account's agreements.
3. Expand the folders and select the specific agreement or subagreement to view.

Monitoring Infrastructure, Equipment, and Usage in Siebel Communications (End User)

End users can record and monitor the infrastructure, equipment, and usage information for service customers.

> **Note:** End users can also view the usage detail information or add telecommunications-related infrastructure information through the Premises screen. The decision to add equipment or infrastructure information to a premises or account might depend on whether the equipment is likely to remain attached to the premises independently of the account currently receiving utility service at that premises.

Viewing Usage Details

To display usage details, follow this procedure.

To view usage detail information

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Usage Detail view tab.

A list of services appears with usage history. The history displays period-by-period or monthly usage information about the account and service you select.

4. In the Usage Detail list, select the service.
5. In the Usage History list, select the type of usage information you want to view from the drop-down list.

   All options except Usage History and Usage Information display the information in charts.

Adding Installed or Planned Equipment

To add installed or planned equipment, follow this procedure.

In the Equipment list, record and view items supplied by your company, and in the Other Equipment list, record and view items supplied by other companies, including competitors and alliance partners.

You can also use these lists to record information about the equipment your customers own or plan to acquire For instance, if your company offers digital service to high-end digital set-top boxes, you might record information about the premises equipment currently installed at a large apartment building or the future wiring needs of a developer.

If you create separate service accounts for customers with multiple locations, then you can associate installed and planned equipment for a location with its corresponding service account. If you use a single account to represent a customer with multiple locations, then associate the installed and planned equipment for each of the customers' various locations with the one account for that customer.

To add installed or planned equipment

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Equipment view tab.
4. In the Equipment or Other Equipment list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Type	Select the type of service available for the equipment.
Product	Select the product for the equipment. The value you select in the Type field determines the values available for selection in this field. Most of the other fields are populated automatically with data about the product you select.
Install Date	Select the date and time when the equipment was installed, or the date and time when the customer plans to purchase the equipment.

Adding Related Infrastructure

To add related infrastructure, follow this procedure.

In the Infrastructure list, you record information or attributes for the telecommunications-related infrastructure at the sites to which you provide services. This information can be important at large industrial or commercial sites such as factories, warehouses, and office buildings.

If you use multiple service accounts to represent a customer with multiple locations, then associate infrastructure items at each location with its corresponding service account. If you use a single account to represent a customer with multiple locations, then associate the infrastructure items at all the customer's locations with the one account for that customer.

To add telecommunications-related infrastructure

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Infrastructure view tab.
4. In the Infrastructure list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Attribute	Select the attribute of the infrastructure item. The value you select in the Service Type field determines the values available for selection in this field.
Value	Type the value of the attribute.
Owner	Select the name of the owner of the infrastructure item.

4 Profiles in Siebel Communications

Profiles in Siebel Communications

This chapter explains some basic concepts regarding profiles and includes procedures for creating them. It also describes the interrelationship among profiles, business functions, and back-office applications. It includes the following topics:

- *About Profiles in Siebel Communications*
- *Scenario for Using Profiles in Siebel Communications*
- *Creating and Updating a Profile in Siebel Communications (End User)*
- *About Billing Profiles in Siebel Communications*
- *Creating or Updating a Billing Profile in Siebel Communications*
- *About Customer Profiles in Siebel Communications*
- *About Exemption Profiles in Siebel Communications*
- *About Financial Profiles in Siebel Communications*
- *About Fraud Profiles in Siebel Communications*
- *About Loyalty Profiles in Siebel Communications*
- *About Site Profiles in Siebel Communications*
- *About Statement Profiles in Siebel Communications*
- *Creating and Updating an Address Profile in Siebel Communications (End User)*
- *Process of Managing Special Rating Profiles, Lists, and Products (End User)*

About Profiles in Siebel Communications

Administrators, such as call center administrators, sales administrators, and sales managers, benefit from reading this chapter. It shows where customer service representatives (end users) enter information for these profiles and which information might be critical for smooth integration with back-office applications. After becoming familiar with the end-user procedures, you can customize the software to fit your company's needs.

A *profile* stores information required to perform a business function. For example, a billing profile contains the information needed to invoice the customer for products and services.

Profile Types

The following describes the account profiles available within Siebel Communications.

Profile	Comments
Address Profile and MSAG Profile	Allows for validation of an address against a master street address guide (MSAG) data source or other external database.This validation helps provide an accurate address in the format needed for external

Profile	Comments
	applications, such as an Emergency 911 database. You can also use the MSAG Profile as an example for creating other profiles relevant to your company.
Billing Profile	Captures the bill run characteristics needed to invoice the customer for products and services. It is generally associated with a billing account. An account has one billing profile that can be used in multiple billing applications to produce a bill for the account.
Customer Profile	Contains information about an account when the customer is an organization rather than a residential account. Much of the profile information can be added automatically if your company imports this data into Siebel Communications from its billing software or customer information application.
Exemption Profile	Contains the specific information related to any subsidies and exemptions for which the customer may be eligible, tracks when a subsidy or exemption takes place, and records the receipt of supporting information.
Financial Profile	Contains information used to perform a credit check on the customer.
Fraud Profile	Contains information about the fraud status of an account. It allows end users to set fraud thresholds that, when exceeded, trigger a fraud alert.
Loyalty Profile	Contains information needed to predict customer churn, estimate debt risk, and identify upsell and cross-sell opportunities. When integrated with a third-party predictive modeling package, it displays scores generated by that software.
Site Profile	Contains detailed information about an account's location.
Statement Profile	Records billing statement preferences, including number of copies, media, and contact requesting the statement.

Note: The order management module no longer uses the Service Profile view. If you used the Service Profile view in the 6.x or earlier versions of Siebel Communications, then you want to use the new MSAG Profile view instead.

Profile Roles and Responsibilities

The following information lists the employees who generally perform the procedures related to profiles.

Position	Description
Customer service representative	• Focuses on call center activities, primarily responding to customer inquiries and sales order requests. • Understands account hierarchies, including the required key information for a profile. • Creates profiles for new customers, modifies and adds profiles for existing customers.

Position	Description
Sales representative	• Focuses on outside sales and customer relationship management. • Understands account hierarchies, including the required information for profiles. • Creates profiles for new customers, modifies and adds profiles for existing customers.

Scenario for Using Profiles in Siebel Communications

This topic gives one example of how profiles might be used. You might use profiles differently, depending on your business model.

For a new customer, the customer service representative (CSR) has already created an account hierarchy, added a contact for the account, and entered an address for the account. This scenario continues the *Scenario for Using Accounts in Siebel Communications*.

Now, for each service account in the hierarchy, the CSR wants to validate its address against the MSAG (master street address guide) database or a similar external database. This validation guarantees that the proper address format is sent to the Emergency 911 database when the service is provisioned.

After submitting each new address for validation, the CSR chooses the correct match from the list the database sends back. She checks to see that the validated field has been automatically updated to indicate the procedure was completed.

Next the CSR creates unique profiles associated with individual accounts. Each profile stores information necessary to perform a business function.

Starting with the first-level parent account, the CSR creates a financial profile and a statement profile as follows:

- The CSR creates a financial profile for the first-level parent account because the customer's company has financial responsibility for all its accounts. The financial profile includes all necessary information to perform a credit check on the company.
- The CSR also creates a statement profile for the first-level account because the customer wants to receive a statement at the corporate level that summarizes all charges for products and services.

  The statement profile contains information, such as the address, number of copies of the statement required, statement media type, frequency of statement, contact person, and so on. Each statement profile is given a unique identifier within the CSR's company's billing application. All the profile information is required by the billing application so that the statement can be processed.

The CSR then moves on to the billing subaccounts in the hierarchy and creates separate billing profiles for those subaccounts. Each billing profile stores information, such as the mailing address, contact, billing frequency, and debit or credit card data for that account.

She then creates statement profiles for several subaccounts so that those offices can receive informational statements for the amount of service used.

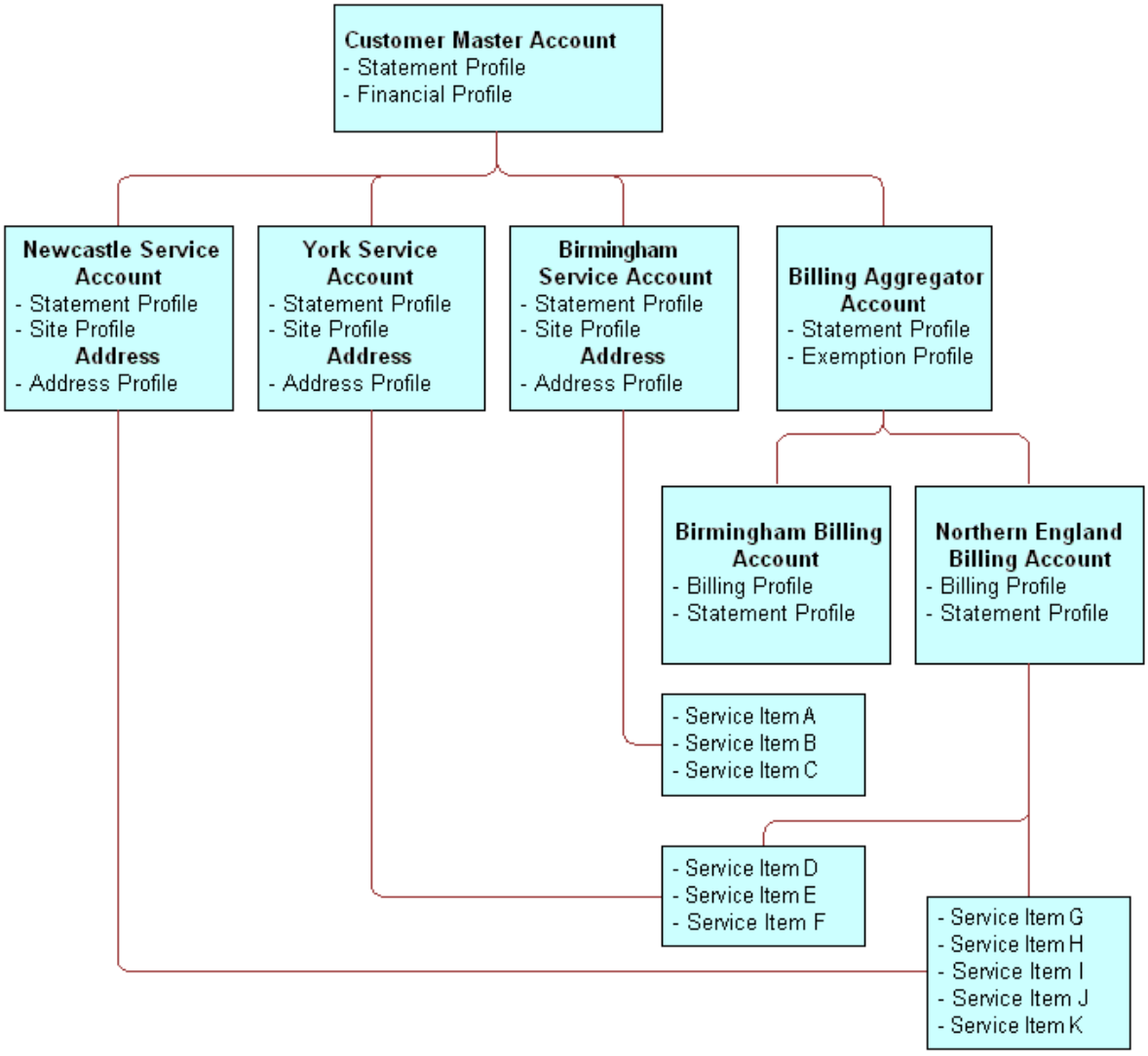
Next she creates an exemptions profile when subsidy and tax exemption information applies. For example, a charitable organization has a tax exemption status. Exemption profiles can be created for any level of the account hierarchy and are usually part of the initial account setup. They contain information that can also be passed to the billing application.

Then she creates a site profile for each service account, which specifies how many floors the site has, where equipment is located within the site, and so on.

The following image shows the accounts and profiles needed for the customer's account hierarchy in the business scenario, In summary, the accounts and profiles needed are as follows:

> **Note:** Siebel Communications does not restrict how end users build hierarchies. If you want to enforce certain rules, then you must set the rules up within Siebel Business Applications. This image shows one recommended use of profiles for specific account classes.

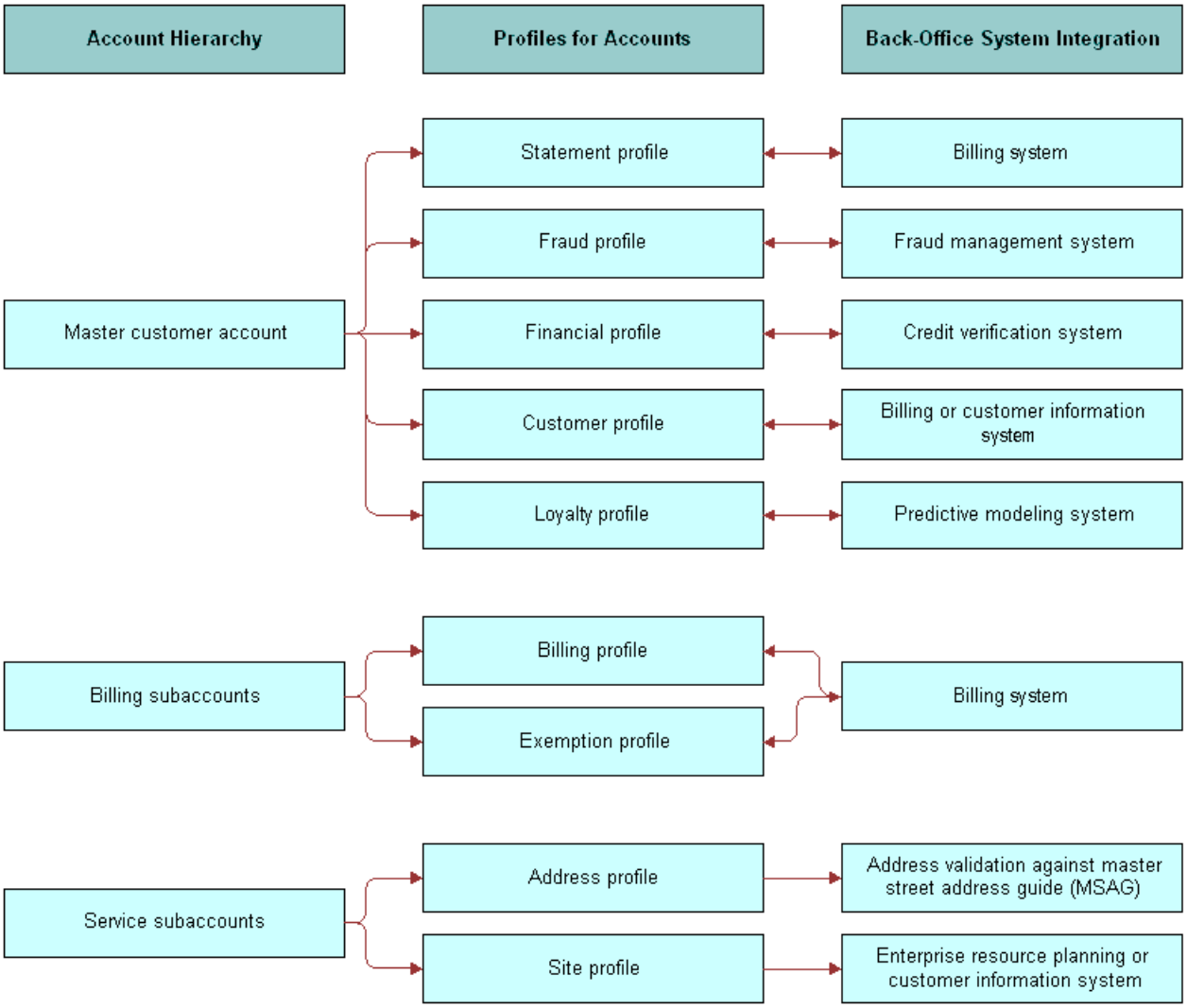
- The Customer Master Account requires a Statement Profile and Financial Profile.
- Each of the service accounts (Newcastle Service Account, York Service Account, and Birmingham Service Account) requires a Statement Profile, Site Profile, and Address Profile.
- The Billing Aggregator Account requires a Statement Profile and Exemption Profile.
- Each of the billing accounts (Birmingham Billing Account, and Northern England Billing Account) requires a Billing Profile and Statement Profile.



The following image summarizes the interrelationship among accounts, profiles, and back-office applications in the business scenario. In summary, the interrelationships are as follows:

Note: For simple residential customer accounts (those not separated into billing and service accounts), all profiles are directly associated with the customer account and not with subaccounts as shown in the following image.

- Customer master account has the following:
  - Profiles for Accounts: Statement, Fraud, Financial, Customer and Loyalty profiles.
  - Back-office System Integration: Billing system, Fraud management system, Credit verification system, Billing or customer information system, and Predictive modeling system.
- Billing subaccounts have the following:
  - Profiles for Accounts: Billing and Exemption profiles.
  - Back-office System Integration: Billing system.
- Servicce subaccounts have the following:
  - Profiles for Accounts: Address and Site profiles.
  - Back-office System Integration: Address validation against master street address guide (MSAG) and Enterprise resource planning or customer information system.



Creating and Updating a Profile in Siebel Communications (End User)

At each level in the account hierarchy, end users can create one or more account profiles. However, administrators must make sure the application supports the specific type of profiles they want end users to maintain. For example, if the billing application does not support exemption plans, then an exemption profile is not necessary.

Topics in this chapter describe the various profiles you can create using the procedure in this topic and the unique fields required for each.

Note: This topic pertains to all profiles *except* Address (MSAG) Profiles. For information about working with MSAG profiles, see *Creating and Updating an Address Profile in Siebel Communications (End User)*.

To create or update a profile

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Profiles view tab.
4. In the link bar of the Profiles view, click a profile type.
5. In the forms or lists that appear for that specific profile, update the information.

About Billing Profiles in Siebel Communications

End users create a *billing profile* to invoice the customer for products and services. A billing profile contains such information as billing frequency, payment type, bill media, bill type, and the customer's email address for sending a bill electronically. This information can be submitted to a back-office application for bill processing.

A billing profile is generally associated with a billing account and can represent the legally binding agreement between the customer and the service provider. A billing profile might contain information synchronized from an external billing application.

End users can associate more than one billing profile with an account, but they must choose one billing profile as the primary billing profile.

When Siebel Communications is integrated with a third-party billing application through Oracle Application Integration Architecture, a billing profile record is successfully passed to the billing application if the contact and address fields for the record contain data and if the payment method field for the record is Credit Card, Automatic Debit, or Bill Me. Additionally, if the payment method is Credit Card, the billing profile record is successfully passed to the billing application only if the Name, Credit Card #, and Exp fields in the Credit Card Payment form contain data. If the payment method is Automatic Debit, the billing profile record is successfully passed to the billing application only if the Account # and Routing # fields in the Automatic Debit form contain data.

After billing profiles are created, end users can select any billing profile for the account that is associated with a quote, a quote line item, an order, or an order line item (and, through an order line item, with an asset). For more information about Oracle Application Integration Architecture, see *About Prebuilt Integration with Siebel Communications*.

Creating or Updating a Billing Profile in Siebel Communications

To create or update a billing profile in Siebel Communications, follow this procedure.

To create or update a billing profile

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. Enter data about the profile for the account in the Billing Profile list fields.

   Some fields are described in the following table.

Field	Comments
Name	The name of the billing profile.
Primary	Select this field to indicate that this profile is the most commonly applicable profile for the customer. Each account can have only one primary profile.
Frequency	The interval in which you bill the customer for service. All of the billing profiles for an account must have the same value in the this field. If you create a billing profile with a different value in this field than the other billing profiles for the account, the billing profile is not successfully passed to the billing application.
Payment Type	Select Postpaid if the customer pays after using the service. Select Prepaid if the customer pays before using the service. If you select Prepaid, the Top Up Preference form appears after the Billing Profile list. See Step 8 to enter account replenishment details in this form.
Payment Method	The value in this field determines the fields available in the form for payment details. o If you select a payment method of Credit Card, the Credit Card Payment form appears after the Billing Profile list. See the following. o If you select another payment method, the Automatic Debit form appears after the Billing Profile list. See Step 7.
Email Bill To	The email address to which the customer bill is sent.
Auto Top-Up	Select this check box to indicate that the account is automatically replenished when the account balance decreases to a threshold amount that you specify.

6. If you select Credit Card in the Payment Method field, enter credit card details for the account in the Credit Card Payment form that appears after the Billing Profile list.

   Some fields are described in the following table.

Field	Comments
Category	Category of the payment card, such as Debit, Procurement, or Credit card.

Field	Comments
Blocked	After you use an external system to verify a card, select this field if you discover that the card is blocked.
Blocked Reason	The reason the card is blocked. This reason applies only to the card in the Payment Details view, not to other customer cards.

7. If you select a payment method other than Credit Card in the Payment Method field, enter payment method details for the account in the Automatic Debt form that appears after the Billing Profile list.
8. If you select Prepaid in the Payment Type field, enter replenishment details for the account in the Top Up Preference form that appears after the Billing Profile list.

   Some fields are described in the following table.

Field	Comments
Top-Up Amount	When the account is replenished, the amount by which to replenish the account.
U/M	The unit of measure 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 measure 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	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. If you select the Auto Top-Up check box in Step 5, this field value has no effect because the account is automatically replenished when the account balance decreases to the threshold amount.

About Customer Profiles in Siebel Communications

End users create a *customer profile* for accounts when the customer is an organization rather than a residential account. Much of the profile information can be added automatically if your company imports this data into Siebel Communications from its billing software or customer information application.

The customer profile allows end users to capture relevant customer information, such as financial and sales information about the customer, and to record information about the customer's partners and competitors.

About Exemption Profiles in Siebel Communications

End users create an exemption profile to list subsidy and exemption information for which the customer may be eligible. An exemption profile includes fields to track when a subsidy or exemption takes place, and it records the receipt of supporting information.

The following describes some fields in the Exemption Profiles form.

Section	Field	Comments
LIFELINE	Eligible	Customer's eligibility for Lifeline assistance.
	Received Date	Date when Lifeline documentation is received.
	Effective Date	Date when Lifeline assistance is effective.
	Renewal Date	Date when Lifeline renewal is required.
DIRECTORY ASSISTANCE	Status Effective Date	Select from the Status drop-down list and the Effective Date calendar.
TAX EXEMPTION	Federal Id State Id County Id City Id	Identification numbers to show eligibility for a federal, state, county, and city exemption for tax.
	Tax Exemption Number	Number of the certificate that is issued for temporary exemption from tax.
TEL-ASSISTANCE	Requested Status Social Security Number Effective Date	Select from the Status drop-down list and the Effective Date calendar.

About Financial Profiles in Siebel Communications

End users create a financial profile to perform a credit check on the customer. To verify a customer's credit, Siebel Communications submits a request to a back-office application or credit bureau. The back-office application or credit bureau sends back a response that includes a credit score that determines whether the customer is authorized by internal credit policy to subscribe to services. These back-office applications perform credit checks for incorporated businesses or individuals.

The following describes some fields in the Financial Profiles form. However, different fields can appear according to the value you select in Account Type field of the account record.

Section	Field	Comments
PROFILE	Contact Last Name and First Name	Contact for the account. When you create a new record, this field is automatically populated with the name of the contact in the Primary Contact field of the account record.
	Corporate Number	Business number that is provided by a state, county, or city government.
	Legal Entity	Legal name of the company or corporation.
	Tax Profile Code	Code from standard tax categories that classify companies according to their tax aspects. This information is stored in an external billing application or an external credit and tax application.
BANK	Account Name Account # Bank Name Bank Branch	Customer's bank information for a credit check.
CREDIT RATING	Rating	Credit rating of the customer.
	Source	Group that performed the most recent credit rating.
	Last Update	Date the last credit check was performed.
	Update By	User ID of the person who last requested a credit check.

Running a Credit Check

To run a credit check, the financial profile information is sent to an external application that reports a credit rating. The credit rating is typically produced by a credit bureau and indicates the customer's ability to pay. This credit rating helps companies to assess their risk before agreeing to credit terms with a potential customer.

Note: Credit check data for an incorporated business or an individual includes business name, billing address, corporate ID, and tax ID. For an unincorporated business, credit check data includes name, social security number, and driver's license.

To run a credit check

1. Set up the financial profile.

   For more information about creating a profile, see *Creating and Updating a Profile in Siebel Communications (End User)*.
2. In the Financial Profile form, click Credit Check.

The financial profile information is sent to an external application that reports a credit rating.

About Fraud Profiles in Siebel Communications

A fraud profile contains information about the fraud status of a customer account. End users can set up thresholds that, when exceeded, trigger the creation of a fraud alert.

The following describes some fields in the Fraud Profiles form.

Field	Comments
Max Duration of Calls	Maximum time that is allowed for a call.
Max Number of Calls	Maximum number of calls that the customer can make in a given period.
Max Value of Calls	Cost of the calls, in the appropriate currency.
Daily Threshold	Threshold limit for the calls the customer can make in a day.
Domestic Threshold	Threshold limit for the domestic calls the customer can make.
International Threshold	Threshold limit for the international calls the customer can make.
Credit Threshold	Amount of credit the account is allowed.
Sensitive Number Threshold	Threshold limit for calls that the customer can make to sensitive numbers. Sensitive numbers might include high-priced calls, such as calls to 900 numbers.
Overflow Value	Overflow allowed for the threshold limits in the Calculator, expressed as a percentage.

About Loyalty Profiles in Siebel Communications

The Siebel industry solution for communications and media contains a Loyalty Profile. The Loyalty Profile view contains scores generated by a third-party predictive modeling application pertaining to customer accounts. These scores help predict customer churn, project customer lifetime value, estimate financial risk, and identify upsell and cross-sell opportunities.

The Loyalty Profile view also contains key data used as input to a predictive modeling application. Some data, while residing in the Loyalty Profile view, is not generated from within the Siebel applications. A marketing administrator can develop loyalty and retention campaigns by using these predictive scores.

About Site Profiles in Siebel Communications

A site profile contains detailed information about an account's location. This information can provide employees and partners with special delivery instructions or with useful site information to help determine the type of service available.

The following describes some fields in the Site Profiles form. To access all fields, click the show more button in the form.

Field	Comments
Servicing Company	Service company or local distribution company that provides the service.
Supply Characteristics	Indicates wether the site is inside or outside your company's standard service territory.
Open Market	Indicates whether the site is either in an unregulated market or in a regulated market.

About Statement Profiles in Siebel Communications

End users can create multiple statement profiles for an account if the billing system supports this. Statement profiles contain billing statement preferences, including number of copies, media, and contact requesting the statement.

Some fields in the Statement Profile form are described in the following.

Field	Comments
Media	Media on which the statement is to be transmitted.
Vendor	Organization that prints or distributes bills.

Creating and Updating an Address Profile in Siebel Communications (End User)

End users can enter addresses without tight restrictions on formatting. However, when provisioning services, tighter formatting restrictions might be required by a back-office application.

To guarantee proper formatting, the address needs to be validated against a back-office data source. In Siebel Business Applications, Address Profiles allow multiple formats of one address to be stored. The MSAG (master street address

guide) format is available with the shipped product, but other formats can be added using Siebel Tools. When setting up additional formats, use the MSAG Profile as an example.

Obtaining the proper address format is important in performing the following key business processes:

- Validating service addresses or mailing addresses against an external standard to guarantee a unique location for finding facilities, activating services, or mailing materials through the Postal Service.
- Determining the existing services and service provider at the address. This could be a simple confirmation, although in the case of wireline service moves, a variety of service information can be returned or exchanged between systems.
- Forwarding updated information to an external database in the format necessary to guarantee consistency within that database after a service is activated.

Each address profile format requires an external data source for validation. Your company can either own the data outright or subscribe to a service that provides the data.

Note: The MSAG format adheres to the Local Service Order Guidelines (LSOG) v5 specification.

After validating an address, end users can change some address fields. To edit those fields, end users must revalidate the address.

Validating an Address

To validate an address, follow this procedure.

To validate an address

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Address Profile view tab.

   The Address list appears with the MSAG Profile form. The Address list shows all of the addresses associated with the account.
4. In the Address list, select the address you want to validate.
5. Scroll down to the MSAG Profile form, add a record, and complete the necessary fields.
6. In the Validated field, select Y.

   If the address validation is integrated with an external data source, then selecting Y begins a search for possible addresses.

   Note: This behavior differs from the default behavior of the shipped product, which supports manual address validation. In the manual state, selecting Y marks the MSAG Profile as validated.
7. In the dialog box containing addresses, select the address that matches the customer's address.

   After the address is validated, the MSAG profile becomes read-only with the exception of the Access Instruction and Descriptive Location fields. To update the profile, you must revalidate the address.

Revalidating an Address

To revalidate an address, follow this procedure.

To revalidate an address

- Follow the procedure for validating an address, but click ReValidate after Step 4 in *Validating an Address* before continuing with the procedure.

Process of Managing Special Rating Profiles, Lists, and Products (End User)

A *special rating list* is a list of objects associated with a service, which require special processing in the billing and rating applications. Special rating lists provide a way to give special rates or discounts by using a specific attribute, service, or account. For instance, calls made to certain telephone numbers might be charged by a billing system at a cheaper rate than normal calls. An example of a special rating list is a *friends and family list*, a list of phone numbers that receive special rating considerations such as free airtime when calling other numbers in the list.

A special rating list's billing considerations are determined by special rating rules or discounts defined in the external Oracle Communications Billing and Revenue Management application. These rules can also apply to non-voice services such as text messaging. The Special Ratings feature in Siebel Communications takes advantage of the Extended Ratings Attribute feature in Oracle Communications Billing and Revenue Management. For more information about the Extended Ratings Attribute feature of Oracle Communications Billing and Revenue Management, consult the documentation for your Oracle Communications Billing and Revenue Management system.

A *special rating profile* is a collection of special rating lists defined for an account. These lists contain phone numbers that are included in each special rating list, and assets that are defined for the phone numbers. Under an account's special rating profile, you can create multiple special rating lists, each with multiple list items.

A *special rating product* is the service to which a customer can subscribe in order to associate a designated special rating list with the appropriate service. For example, a special rating product named, My Social Network, might define a friends and family plan, and might require a special rating list that captures the phone numbers for the plan. For more information about special rating products, see *Setting Up Special Rating Products in Siebel Communications*.

A special rating product can be associated with a special rating list in a quote line item or a sales order line item. You can associate a special rating list only with a special rating product line item. For more information about adding special rating lists and special rating products to a quote or sales order, see the chapter on employee asset-based ordering in *Siebel Order Management Guide Addendum for Communications* .

To manage special rating products, special rating lists, and special rating list items in Siebel Communications, perform the following tasks:

- *Setting Up Special Rating Products in Siebel Communications*
- *Creating Special Lists in Siebel Communications*
- *Creating Special Rating List Items in Siebel Communications*
- *Modifying Special Rating Lists in Siebel Communications (End User)*

- *Changing the Association of Special Rating Lists in Siebel Communications*

Setting Up Special Rating Products in Siebel Communications

A Siebel product administrator can create a special rating product. A *special rating product* is the service to which a customer can subscribe in order to associate a designated special rating list with the appropriate service. For example, a special rating product named, My Social Network, might define a friends and family plan, and would require a special rating list that captures the phone numbers for the plan.

Special rating products allow special ratings by using lists provided in the external billing system. It is important to make sure that the name of a special rating product in Siebel CRM matches the corresponding Friend and Family ERA provisioning tag in Oracle Communications Billing and Revenue Management.

You can define product rules for a special rating product in Siebel Communications, such as eligibility and promotion constraints. You can also define pricing policies in Siebel Communications.

You can add a special rating product to a service bundle. For example, if Favorite Call List and Favorite Text List are special rating products, they can be grouped in a service bundle named Mobile Service. For more information about service bundles, see *About Service Bundles*.

A special rating product can be associated with a special rating list in a quote line item or a sales order line item. You can associate a special rating list only with a special rating product line item. For more information about special rating lists, see *Process of Managing Special Rating Profiles, Lists, and Products (End User)*. For more information about adding special rating lists and special rating products to a quote or a sales order, see the chapter on employee asset-based ordering in *Siebel Order Management Guide Addendum for Communications* .

The following procedure describes how to set up a special rating product. For more information about setting up a product, see the chapter on basic product administration in *Siebel Product Administration Guide* .

This task is a step in *Process of Managing Special Rating Profiles, Lists, and Products (End User)*.

To set up a special rating product

1. Navigate to the Administration - Product screen, then the Products view.
2. In the Products list, add a new record, and complete the necessary fields.
3. Click the Product Detail view tab.
4. In the Products Detail form, complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Name	The value in this field must match the corresponding Friend and Family ERA provisioning tag in the external Oracle Communications Billing and Revenue Management application.
Track as Asset	Selected.
Billing Service Type	Null.
Billing Type	Special Rating.

Field	Comments
Special Rating Type	Phone Number
Special Rating Max Items	The maximum number of items that the special rating product can include. For example, you might define a Friends and Family plan that can include a maximum of six phone numbers. **Note:** The Special Rating Max Items field is editable only if the value of the Billing Type field is Special Rating.

Creating Special Lists in Siebel Communications

To create a special rating list in Siebel Communications under the account profile, follow this procedure.

This task is a step in *Process of Managing Special Rating Profiles, Lists, and Products (End User)*.

To create a special rating list

1. Navigate to the Accounts screen, then the Accounts List view.
2. Select the account for which you want to create a special rating profile, and click the link in the Name field.
3. Click the Profiles view tab, then click the Special Rating Profile subview tab.
4. Create a new record in the Special Rating Profile list, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Primary	Select to designate the primary profile in the list. The first record created is selected by default.
List Name	Enter an external name for the list, for example, My Top 5 Personal Numbers.
Type	Special rating type. Defaults to blank. Select Phone Number to activate the Items list.
Comments	Descriptive information about the profile.
Last Sync Date	System-generated and read only. Date and time when the list was last synchronized with the external Oracle Communications Billing and Revenue Management application.

Creating Special Rating List Items in Siebel Communications

To create list items for a special rating list in Oracle's Siebel Communications through the account profile, follow this procedure.

This task is a step in *Process of Managing Special Rating Profiles, Lists, and Products (End User)*.

1. Navigate to the Account screen, then the Accounts List view.
2. Select the account for which you want to add special rating list items, and click the link in the Name field.
3. Click the Profiles view tab, then click the Special Rating Profile subview tab.
4. In the Special Rating Profile list, select the special rating list to which you want to add list items.
5. Scroll down to the Items list.
6. Create a new record for a phone number, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Phone Number	Enter a phone number, including the area code and the extension, if applicable.
Start Date	Read only. Date when the item is created.
End Date	Read only. Date when the item is inactivated.
Inactive	Select this field to deactivate the item. When the item is deactivated, it becomes read-only.
Last Sync Date	System-generated and read only. Date and time when the item was last synchronized with the external Oracle Communications Billing and Revenue Management application. **Note:** Synchronization includes only active items; that is, items with End Date set to null. Hence, different list items might have different Last Synchronized dates.

7. View the assets associated with the selected Special Rating List item.

   The Associated Assets list is read-only and displays active assets (that is, assets whose Status is not Inactive) that are currently associated with the selected special rating list item. Some fields are described in the following table.

Field	Comments
Asset	Name of the asset; that is, the name of the selected list item product

Field	Comments
Asset Service Id	Service ID of the asset
Special Rating Max Items	Maximum number of items for the asset product or list product
Root Asset Service Id	Service ID of the root asset, for example, 650 123 1234
Parent Asset	Product name of the parent asset, for example, Mobile Voice
Parent Asset Service Id	Service ID of the parent asset, for example, 650 123 1234

8. Repeat Step 6 and Step 7 for each phone number that you want to add to the special rating list.
9. On the Special Rating Profile tab, click Synchronize to update the selected special rating profile and its associated special rating list in the external Oracle Communications Billing and Revenue Management application.

Modifying Special Rating Lists in Siebel Communications (End User)

To change the items on a special rating list, follow this procedure.

This task is a step in *Process of Managing Special Rating Profiles, Lists, and Products (End User)*.

To modify a special rating list

1. Navigate to the Account screen, then the Accounts List view.
2. Select the account for which you want to modify a special rating profile, and click the link in the Name field.
3. Click the Profiles view tab, and then click the Special Rating Profile subview tab.
4. In the Special Rating Profile view, select the special rating list for which you want to modify special rating list items.
5. Scroll down to the Items list, and select the special rating list item that you want to modify.
6. Modify the special rating list item by performing one of the following actions:
   - Deactivate a phone number by selecting the Inactive field.

     When the Inactivate field is selected, the item becomes read-only. However, the Inactive flag for the item is still enabled. You can reactivate the item later.
   - Add a new item to the list.

   The following restrictions apply when modifying a special rating list:
   - You cannot add more list items than the maximum number of items defined for the associated special rating product. For more information about special rating product definitions, see *Setting Up Special Rating Products in Siebel Communications*.

You cannot modify a list if one or more in-flight orders (sales order line items that are not Cancelled or Complete) are associated with the list. This restriction prevents data mismatches between the list instances and the list profile.

7. In the Special Rating Profile list, click Synchronize to update the selected special rating list and its associated list items in the external Oracle Communications Billing and Revenue Management application.

Changing the Association of Special Rating Lists in Siebel Communications

You can change the association of a special rating list by selecting a different special rating list to associate with an asset. To change the association of a special rating list, follow this procedure.

This task is a step in *Process of Managing Special Rating Profiles, Lists, and Products (End User)*.

To change the association of a special rating list

1. Navigate to the Account screen, then the Accounts List view.
2. Select the account for which you want to modify a special rating list, and click the link in the Name field.
3. Click the Installed Assets view tab.
4. On the Installed Assets list, select the asset associated with the special rating list item whose association you want to change.
5. Click Modify.

   Siebel Communications displays a Special Rating Profile list associated with the selected asset and prompts you to create a new quote or sales order.
6. In the Line Items list, change the Special Rating list to a different list.

   Siebel Communications changes the Action Code of the line item (list product) to Update.

5 Contacts in Siebel Communications

Contacts in Siebel Communications

This chapter discusses contact management and includes procedures for contact management. It includes the following topics:

- *About Contacts in Siebel Communications*
- *Scenario for Using Contacts in Siebel Communications*
- *Creating a Contact in Siebel Communications (End User)*
- *Modifying a Contact Profile in Siebel Communications (End User)*
- *Creating a Contact-Related Activity in Siebel Communications (End User)*
- *Associating a Contact with a Trouble Ticket in Siebel Communications (End User)*
- *Additional End-User Tasks for Contact Management in Siebel Communications*

About Contacts in Siebel Communications

A *contact* is someone about whom you or your company needs to keep business or personal information.Siebel Communications helps you manage contacts and associate contact data with accounts, opportunities, trouble tickets, or service requests.

Customer service representatives and field service representatives are examples of end users who might use contact management functions.

End users can useSiebel Communications to complete the following tasks:

- Record and track business and personal contact information.
- Create and track a list of activities for a contact.
- View a contact profile.
- View information about trouble tickets and service requests that are associated with a contact.

Scenario for Using Contacts in Siebel Communications

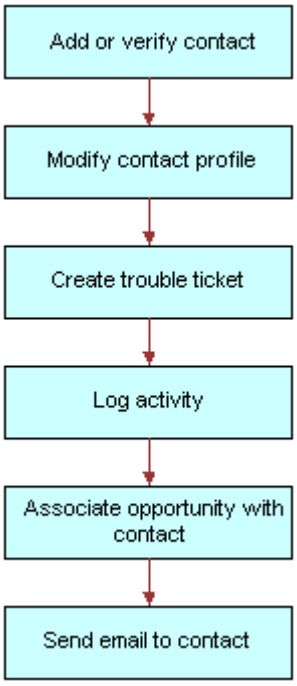
This topic gives one example of how contacts might be used. You might use contacts differently, depending on your business model.

A call center agent receives a call from a customer with a service problem. The agent verifies that the caller is already registered as a contact by using a query on the contact's name. The agent adds information to the customer's contact profile and provides the needed service by creating a trouble ticket without leaving the Contacts screen. The agent then logs the activity. During the call, the customer states an interest in purchasing a particular product, so the agent

associates an opportunity with the contact. After the call, the agent sends a follow-up email to the customer to verify that the action was taken.

The following image shows the sequence of procedures that an end user might follow to manage contacts. The steps in the sequence are as follows:

- Add or verify contact.
- Modify contact profile.
- Create trouble ticket.
- Log activity.
- Associate opportunity with contact.
- Send email to contact.



Creating a Contact in Siebel Communications (End User)

End users must add contacts and verify that particular contacts are established customers. Their company might choose to use passwords for an additional level of verification.

End users can view all contact records that they create. If an end user adds a contact to an account or opportunity and that account or opportunity has an associated sales team, then members of the sales team can also view the contact. In a contact record, a sales team is also known as a contact access list.

Adding a Contact Record

To add a contact record in Siebel Communications, follow this procedure. For more information about adding contacts, see *Siebel Applications Administration Guide* .

To add a contact record

1. Navigate to the Contacts screen, then the Contacts List view.
2. Add a new record to the Contacts list, and complete the necessary fields in the record and the More Info form.
3. In the Account field, select one or more accounts in the dialog box.

   If multiple accounts are associated with this contact, then designate one account as the primary account by selecting the Primary field for that account.

Modifying a Contact Profile in Siebel Communications (End User)

End users can modify a contact profile. Contact profiles are distinct from account profiles.

To add information to a contact profile

1. Navigate to the Contacts screen, then the Contacts List view.
2. Drill down on the name of the contact.
3. Click the Profile view tab.
4. In the Profile form, complete the necessary fields.

Creating a Contact-Related Activity in Siebel Communications (End User)

End users can add, modify, or delete activities for a contact.

To add an activity to a contact

1. Navigate to the Contacts screen, then the Contacts List view.
2. Drill down on the name of the contact.
3. Click the Activities view tab.
4. In the Activities list, add a record, and complete the necessary fields.

Associating a Contact with a Trouble Ticket in Siebel Communications (End User)

End users can associate a contact with a trouble ticket. A similar method can be used to associate a contact with a service request. For more information about trouble tickets, see *Service Requests and Trouble Tickets in Siebel Communications*.

To associate a contact with a trouble ticket

1. Navigate to the Contacts screen, then the Contacts List view.
2. Drill down on the name of the contact.
3. Click the Trouble Tickets view tab.
4. In the Trouble Tickets list, add a record, and complete the necessary fields.

> **Note:** If status value of the trouble ticket is Closed, then you cannot change some field values in this view. To change these field values, drill down on the ticket ID of the trouble ticket, and in the Trouble Ticket Detail form, change the status value of the trouble ticket to Open or Pending.

Additional End-User Tasks for Contact Management in Siebel Communications

For information about other tasks related to contact management, see *Siebel Applications Administration Guide* .

Contacts and Opportunities

End users can use Siebel Communications to associate an opportunity with a contact. For more information, see *Siebel Applications Administration Guide* .

Contact Correspondence

End users can useSiebel Communications to send email to a contact. If an email application and Oracle's Siebel Office are installed, then the message content can be automatically generated. For more information, see *Siebel Applications Administration Guide* .

6 Agreements and Entitlements in Siebel Communications

Agreements and Entitlements in Siebel Communications

This chapter describes agreements and entitlements, and provides procedures for managing them. It includes the following topics:

- *About Agreements and Entitlements in Siebel Communications*
- *Scenarios for Using Agreements and Entitlements in Siebel Communications*
- *Setting Up Templates for the Auto Document Feature of Siebel Communications*
- *Adding an Agreement in Siebel Communications (End User)*
- *Adding Agreement Terms and Generating Totals in Siebel Communications (End User)*
- *Creating and Printing an Agreement Document in Siebel Communications (End User)*
- *Associating an Agreement with an Order in Siebel Communications (End User)*
- *Associating an Agreement with a Service Item in Siebel Communications (End User)*
- *Revising an Agreement in Siebel Communications (End User)*
- *Viewing Agreement Details in the Explorer in Siebel Communications (End User)*

About Agreements and Entitlements in Siebel Communications

Agreements and entitlements can be used by customer service representatives, field service representatives, service managers, account managers, support renewal agents, and contract administrators. Agreement and entitlement data is stored in agreement and entitlement records that must be created, associated with other records, revised, examined, and printed.

This topic defines agreements and entitlements and discusses the relationship between them. For more information about agreements and entitlements, see *Siebel Applications Administration Guide* and *Siebel Field Service Guide* .

Agreements

An *agreement* is a legally binding document that defines the obligations to offer, provide, or produce specific products or services over a set period of time for a specific amount of money. A sale might require an agreement to detail and document the sale transaction.

An agreement typically includes detailed descriptions of pricing, terms, limitations, coverage, conditions, legal rights, processes, and guidelines. Agreements are often revised to reflect changes in the company, a company's product lines, or in the market.

Siebel Communications can manage complex commercial agreements and simple residential agreements. Complex agreement can have multiple levels, each with different terms, conditions, and discounts.

An agreement must be associated with one contact or at least one account. However, agreements can be associated with multiple accounts.

Entitlements

An *entitlement* defines the level of support to which a customer is entitled. Examples of entitlements include response time metrics and service level metrics. A *metric* is a type of provision (for example, response time) combined with a value for that provision (for example, 2 hours). Entitlements are associated with customers through their service-level agreements. For more information, see *Types of Agreements*.

Agreement and Entitlement Relationships

The relationship between agreements and entitlements is as follows:

- An agreement can have one or more entitlements.
- An entitlement can have one or more metrics, accounts, contacts, or products.
- The accounts and contacts associated with agreements might be different from the accounts and contacts associated with an entitlement.

An agreement that is associated with an entitlement can specify that all contacts or products must receive support under the entitlement. This specification provides blanket contact service agreements and blanket product service agreements.

Types of Agreements

Many different types of agreements can be created in Siebel Communications, including contracts, sales agreements, service agreements, service level agreements, master service agreements, work orders, profiles, letters of understanding, letters of intent, nondisclosure agreements, subcontractor work orders, price protections, and support renewals. Some types of agreements are defined as follows:

- A *contract* is an agreement that typically covers an ongoing relationship between a vendor and a customer. A contract states what a vendor is contractually bound to provide to a customer and what a customer is contractually bound to purchase from a vendor. This type of agreement is legally binding and might specify such things as products, services, discounts, terms, and entitlements.
- A *sales agreement* is an agreement that is typically related to a specific sale. This type of agreement specifies such things as base price, discounts, special rates, rentals or leasing, and financing.
- A *service agreement* is a type of agreement that defines a service relationship. It spells out a customer's rights to receive service, including the price, service level, support requirements, maintenance, and warranty. Service agreements have specific components that include:

  - **Service Calendars.** Specify the days and hours during which service are provided (for example, Monday to Friday and 9 to 5).
  - **Quotas.** Specify the amounts of service the customer can receive (for example, number of phone calls allowed, number of on-site visits allowed, and so forth).
  - **Entitlements.** Specify the accounts, contacts, and products that are covered, as well as the metrics being used.
- A *service level agreement* (also referred to as an SLA or a *service support level*) is a type of service agreement that defines a customer's entitlements and assets. A *service level* is a quantitative measurement that is usually expressed as a percentage. For example, a service level might be the percentage of parts received on time out of those requested, the percentage of asset uptime, or the percentage of problems fixed within a required time frame. A service level agreement can also be part of a larger service agreement.

Master Agreements and Subagreements

Small and uncomplicated transactions might need only a standard boilerplate agreement. Larger transactions might need a customized collection of boilerplate agreement sections. Sales involving multiple products and staggered delivery schedules might need agreements with customized content within the customized collection of agreement sections.

End users can create parent-child relationships among agreements. If, for example, a large commercial account requires a master agreement and one or more subagreements, then end users can designate the main agreement as a master agreement and generate its associated subagreements. The master agreement is the parent agreement for the subagreements.

Data from which to build agreements comes from the agreement library in Siebel Communications. An *agreement library* is a data repository developed by your company's sales and legal organizations. It includes information such as recommended and required text for agreement sections, answers to agreement questions, sample cover letters, and sample executive summaries.

Scenarios for Using Agreements and Entitlements in Siebel Communications

This topic gives the following example of how agreements and entitlements might be used. You might use agreements and entitlements differently, depending on your business model. This topic includes the following scenarios:

- *Managing Agreements for a Commercial Customer*
- *Managing Agreements for a Residential Customer*

Managing Agreements for a Commercial Customer

An account manager has been working with a commercial customer for the past two months on an opportunity to supply 100 new subscriptions and rented handsets to the customer's office. Account information for the customer is already present in Siebel Communications. Over the past two months, the account manager has created and maintained the opportunity, quotes, and proposals in Siebel Communications.

After reviewing several proposals and discussing different offerings and services, the company's owner has accepted the account manager's most recent proposal and has requested a service agreement for the current quote.

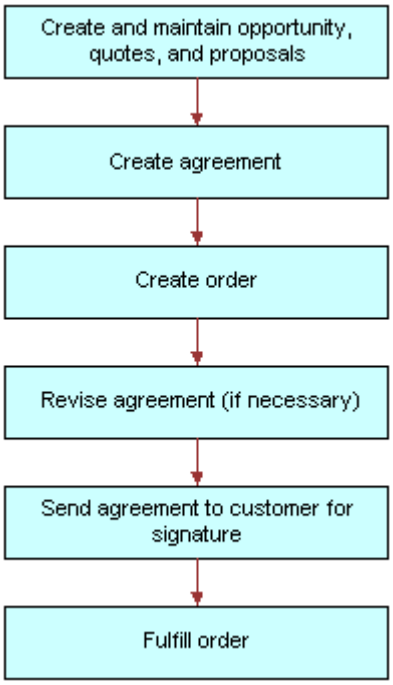
First, the account manager creates an agreement record with basic information such as account name, effective date, and a general description of products and services to be covered. He next selects the appropriate terms to add to the agreement and specifies contacts for this agreement. Next, he creates an order. When the order is created, Siebel Communications associates the new service with the agreement.

The account manager then uses Siebel Communications to generate a physical service agreement. Using a predefined agreement template that the account manager selects, Siebel Communications automatically assembles sections from the agreement library and adds the information the account manager entered for the agreement record and its associated terms and contacts.Siebel Communications then places the text in a Microsoft Word document. If necessary, the account manager can manually edit the Word document to personalize it for the customer.

Finally, the account manager prints the finished service agreement for the owner's approval and signature.

The following image shows the sequence of procedures that might be used to manage commercial agreements. The steps in the procedure are as follows:

- Create and maintain opportunity, quotes, and proposals.
- Create agreement.
- Create order.
- Revise agreement (if necessary).
- Send agreement to customer for signature.
- Fulfill order.



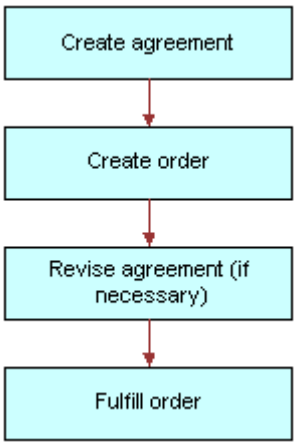
Managing Agreements for a Residential Customer

A residential customer with an existing service agreement decides to purchase a mobile phone for her daughter. She visits an authorized dealer to complete this transaction. The dealer looks up her agreement in the dealer's back-office system, which is connected to Siebel Communications at Greenwich mean time (GMT).

The dealer then creates the order in Siebel Communications. When the order is created, Siebel Communications associates the new service for the daughter with the mother's agreement. When the order is complete,Siebel Communications automatically updates the agreement with the new service. Finally,Siebel Communications issues requests to the appropriate back-office applications to provision the daughter's new mobile service.

The following image shows the sequence of procedures that might be used to manage residential agreements. The steps in the procedure are as follows:

- Create agreement.
- Create order.
- Revise agreement (if necessary).
- Fulfill order.



Setting Up Templates for the Auto Document Feature of Siebel Communications

Administrators must set up agreement templates for the Auto Document feature to work properly.

To set up a template for the Auto Document feature

1. Navigate to the Administration - Document screen, then the Proposal Field Mappings view.
2. In the Business Objects list, add a record for the mapping information.
3. In the Business Object field, select Service Agreement.
4. In the link bar, click Proposal Templates.
5. In the Templates list, add a record, and complete the necessary fields.

Some fields are described in the following table.

Field	Comments
Default	Select this check box if you want to designate this template as the default template. **Note:** The Auto Document feature works only if you designate an agreement template as the default template.
Category	Select Agreement.
Mapping Name	Select the name that you created.
Template File Name	Select the template file to use.

Verifying Templates Appear as Agreement Templates

To verify that a template appears as an agreement template, follow this procedure.

To verify the template appears as an agreement template

1. Navigate to the Agreements screen, then the Documents view.
2. In the Documents list, add a record.
3. In the Template drop-down list, verify that the template appears as an option.

Adding an Agreement in Siebel Communications (End User)

End users can add an agreement record to the Siebel Communications database.

To add an agreement

1. Navigate to the Agreements screen, then the Agreement List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Agreement #	Displays an agreement number that is automatically generated.
Name	Type the name for the agreement.
Account	Select the name of the account that the agreement covers. If multiple accounts are associated with the agreement, then the primary account is visible in the form.
Valid	Select this check box to indicate that the agreement is valid. This check box is selected when entitlements are considered and when preventive maintenance actions are initiated.
Start	Select the date and time that agreement becomes effective.
End	Select the date and time that the agreement expires.
PO#	Type the purchase order number for the agreement.
Team	Select the user ID of the team working on the agreement.
Approver	Select the user ID of the member of the agreement team who is authorized to approve the agreement.
Revision	Displays the revision number of the agreement. The value is set to 1 when you create an agreement and is increased when you revise the agreement.
Service	Select this check box to indicates that the agreement is a service agreement.
Effective	Select the date and time that the agreement becomes effective. This field is for information only.
Parent	Select the parent agreement for the agreement. If the agreement is a subagreement or child agreement, then this field identifies the master or parent agreement.
Vendor	Select the name of vendor who originally sold the agreement.

Adding Agreement Terms and Generating Totals in Siebel Communications (End User)

Agreement terms include information such as payment method, shipping charges, and credit card number. Agreement totals summarize the charges relating to the service applicable to the agreement.

To add terms to an agreement and generate a total

1. Navigate to the Agreements screen, then the Agreement List view.
2. From the Show drop-down list, select All Agreements.
3. Drill down on the name of the agreement.
4. Click the Totals view tab.
5. In the Totals form, complete the necessary fields.

   The agreement totals in the Total form are calculated automatically. The Products field and Services field amounts equal the Total Extended Price for Products and the Total Extended Price for Services, respectively. The Total field shows the total price for the shipment.

Creating and Printing an Agreement Document in Siebel Communications (End User)

End users can prepare and print an agreement for use as a contract document.

To create and print an agreement document

1. Navigate to the Agreements screen, then the Agreement List view.
2. From the Show drop-down list, select All Agreements.
3. Drill down on the name of the agreement.
4. Click the Documents view tab.
5. In the Documents view, complete the following steps:

   a. In the Documents list, click Auto Document.

      Some fields are automatically populated.

      > **Note:** If you receive an error message about a template, then check the template setup. For more information, see *Setting Up Templates for the Auto Document Feature of Siebel Communications*.

   b. If necessary, complete or modify the fields.

      Some fields are described in the following table.

Field	Comments
Name	Type the name of the agreement document record.
Template	Select the template on which to base the agreement.
Draft Name	Select a file for the draft of the agreement.

c. In the Documents list, click Generate Draft.

   The standard agreement sections are assembled into a Microsoft Word document according to the template you select, and specific information from the current agreement record is inserted into the document. A Microsoft Word application window appears showing the draft agreement.

d. Edit and print the Word document as necessary, and then save it.

   The document is automatically associated with the agreement record.

Associating an Agreement with an Order in Siebel Communications (End User)

End users can associate agreements with orders.

To associate an agreement with an order

1. Navigate to the Sales Orders screen, then the List view or to the Service Orders screen, then the List view.
2. Add a new record to the list, and complete the necessary fields.

   To access more fields, click the show more button in the form.
3. In the Agreement Name field, select an agreement in the dialog box, and click Submit.

Associating an Agreement with a Service Item in Siebel Communications (End User)

End users can associate agreements with service items so that they can track detailed agreements at the item level of a product bundle.

To associate an agreement with a service item

1. Navigate to the Quotes screen, then the List view.
2. Drill down on the name of the quote.

3. Click the Line Items view tab, and complete the following steps in the Line Items view:
    a. In the Line Items list, add a record, and complete the necessary fields for the service to order.
    b. In the Product field, select a product.

    > **Note:** The dialog box contains only those products with the Track as Asset field selected in the Administration - Product screen, More Info view.

    c. Click Line Details in the link bar.
    d. In the Line Item Detail form, select an agreement in the Agreement Name field.
4. Click the Orders view tab, and complete the following steps in the Orders view:
    a. Click Sales Order or Service Order.
    b. Complete the necessary fields in the order.
    c. Drill down on the order number of the order.

    The Sales Orders screen appears.
5. In the Sales Orders screen, complete the following steps:
    a. Verify that the line items from the quote appear.
    b. In the Price List field, select a price list.
    c. Click Submit to submit the order and change its Status field value to Open.

Revising an Agreement in Siebel Communications (End User)

End users create a revision to an agreement to add a new clause or term, or to update information that already exists in the agreement. End users might create a revision, for example, when a customer orders a new service that is not covered by the existing agreement, or when their company modifies its discount rates.

When end users revise an agreement, Siebel Communications preserves a record of each earlier version of that agreement. Consequently, revision records allow you to track the history of any agreement. The original agreement is saved as revision 1. When an agreement is revised, the following actions occur:

- The respective revision number is increased by one.
- The agreement name in the Name field is changed to name (.x) where x is the revision number.

To revise an agreement

1. Navigate to the Agreements screen, then the Agreement List view.
2. Drill down on the name of the agreement.
3. In the More Info form, click Revise.

Viewing Agreement Details in the Explorer in Siebel Communications (End User)

End users can use the hierarchical format of the Agreement explorer to view agreements and examine associated information.

To examine agreement details in the Explorer

1. Navigate to the Agreements screen, then the Explorer view.

   A data document appears for each of the parent-level agreements your company has with its customers.
2. Expand the folder for the data document.

   Subfolders appear for the selected agreement's associated agreements, entitlements, activities, notes, and products and services.
3. Expand the subfolder.

   The individual records appear as a series of data documents after the subfolder and as rows in the list.
4. Select a record.

   The details of the record appear highlighted in the list.

7 Premises in Siebel Communications

Premises in Siebel Communications

This chapter explains the concept of a premises and describes procedures you can use to manage the creation and maintenance of premises records. It also describes typical procedures that end users might use when working with premises records. It includes the following topics:

- *About Premises in Siebel Communications*
- *Scenario for Setting Up Premises in Siebel Communications*
- *Setting Up Premises in Siebel Communications (End User)*
- *Registering a Premises Hookup in Siebel Communications (End User)*
- *Associating an Activity with a Premises in Siebel Communications (End User)*
- *Verifying a Premises in Siebel Communications (End User)*
- *Viewing Service Point Information in Siebel Communications (End User)*
- *Viewing Usage History in Siebel Communications (End User)*
- *Viewing Service Requests for a Premises in Siebel Communications (End User)*
- *Adding a Service Request for a Premises in Siebel Communications (End User)*
- *Adding Infrastructure Information in Siebel Communications (End User)*
- *Additional End-User Tasks for Premises Management in Siebel Communications*

About Premises in Siebel Communications

The premises functionality of Siebel Communications is used by administrators, such as distribution network planners, field service engineers, field service operations managers, and managers of customer service representatives. It is also used by end users, such as customer service representatives.

A *premises* is an address that identifies a physical location, such as a building, apartment, land parcel, and so on, to which communications services can be delivered. In Siebel Communications, a premises acts as a grouping of service points.

A premises record stores the address of a building, apartment, or land parcel to which your company offers communications services. Siebel Communications also stores nonservice addresses that are associated with particular customers, such as billing addresses outside the company's service territory. Nonservice account addresses have a variety of uses, but premises records are specifically used to track addresses at which a company might offer services. Premises records are never deleted and can therefore be used to track asset and service usage even if the premises becomes unoccupied.

Premises records also track service points. A *service point* is an asset that is installed at a particular service location and represents a network delivery point, such as a phone jack. For more information about setting up an asset, see *Siebel Field Service Guide* .

Premises information can be imported intoSiebel Communications either periodically in batches, using Siebel Enterprise Integration Manager, or through real-time integration with a third-party application. Premises information can also be entered manually.

Every instance of a service delivered to a particular premises needs a unique identifier, called a service item identifier. Most services are provided through a physical network connection; for example, phone service is connected to a phone jack, and a data access line is connected to a port on a switch. With physical network connections, the Service Point is used as the service item identifier. Some services, such as cellular phone services, do not require a physical network connection. In these cases, a logical identifier, such as a telephone number or IP address, is used as the service item identifier. Typically this identifier is automatically assigned by an external system.

Scenario for Setting Up Premises in Siebel Communications

This topic gives one example of how premises setup might be used. You might use premises setup differently, depending on your business model.

A customer calls your company to set up telephone service at a new house. The customer service representative (CSR) who accepts the call creates an account for the customer and orders the service and service point (phone jack). The ordering process initiates an activity that directs field service engineers to the site. The field service engineers then connect the house to the telephone network, creating a service point for the phone jack.

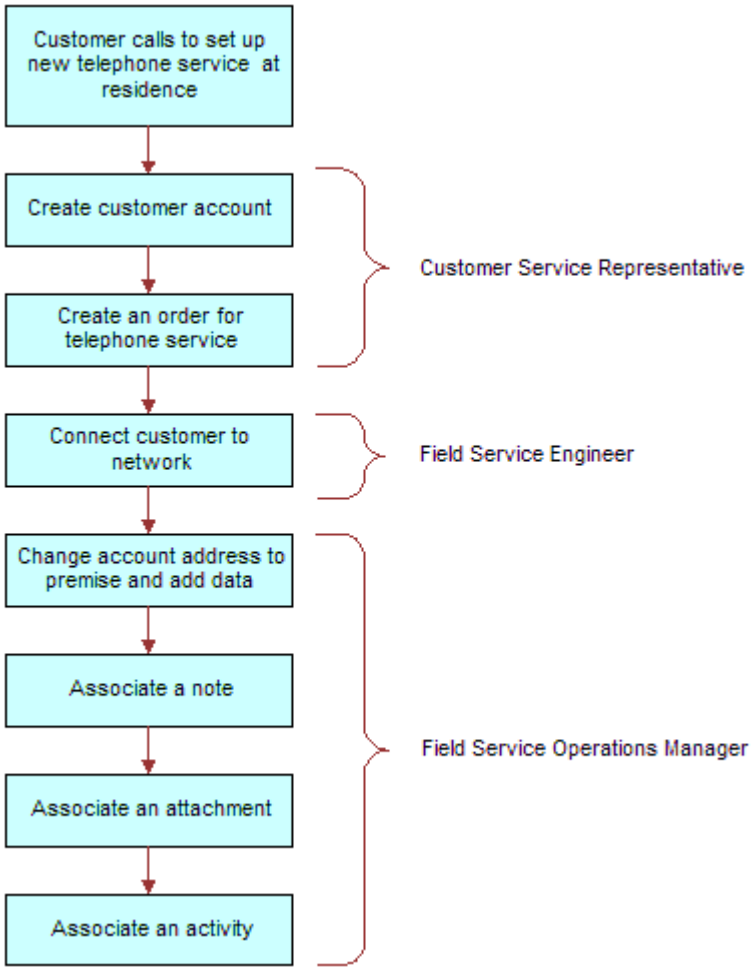
A field service operations manager changes the status of the account address record to a premises in Siebel Communications. She also associates the service point with the premises. In addition, she enters some information related to the premises as a note and then associates an electronic file, which contains a hookup wiring schematic, with the premises. Finally, the field service operations manager creates an activity to notify the network planning department that the local network needs maintenance.

Six months after the occupant moves in to the house, she calls to report static on the telephone line. The CSR who accepts the call first verifies the caller and the caller's location. Before creating a service request, he views general information about the premises and looks to see if there are any existing service requests associated with the premises. The CSR notes that static has been reported several times before and creates a service request documenting the repeated problem.

The following image shows the sequence of procedures that might be used to set up a residential premises. The steps in the procedure are as follows:

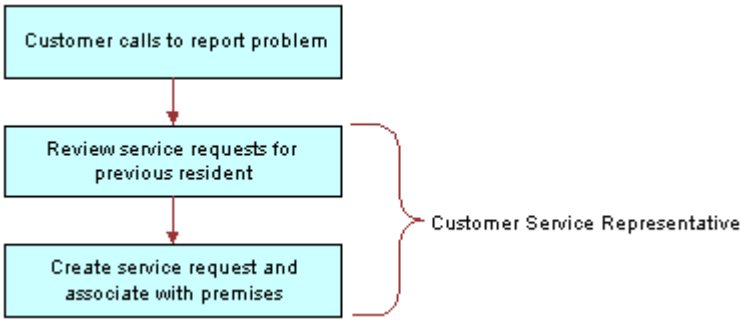
1. A customer calls to set up new telephone service at a residence.
2. Customer Service Representative:
    - Creates a customer account.
    - Creates an order for telephone service.
3. Field Service Engineer:
    - Connects the customer to the network.
4. Field Service Operations Manager:
    - Changes the account address to premise and adds data.
    - Associates a note.

- Associates an attachment.
- Associates an activity.



The following image shows the sequence of procedures that might be used to maintain a residential premises. The steps in the procedure are as follows:

1. Customer calls to a report a problem.
2. Customer Service Representative reviews service requests for previous resident.
3. CSR creates a service request and associates it with premises.



Setting Up Premises in Siebel Communications (End User)

Only administrators can set up premises records. End users can view premises information, view information associated with premises, and associate other records with premises.

About Adding a Premises Record

There are two ways to add a premises record. The method you use depends on if an account for the customer who occupies the premises has already been established. These methods follow:

- You can add a premises record before the customer who occupies a premises is known. In this case, there is no existing customer account with which to associate the premises. When a customer moves into the premises and requests service, the association is made automatically when the premises is added to the account addresses.
- If an account for the customer who occupies a new premises is known, then a new address is added to the account addresses. After the address is validated as a premises, the address is flagged as a premises by an administrator.

Use one of the following procedures to create a premises.

Creating a Premises Before the Account Exists

To add a premises before the customer account exists, follow this procedure.

To add a premises before the customer account exists

1. Navigate to the Administration - Data screen, then the Premises view.

   The All Premises list appears with the More Info form.
2. In the form, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Buildings	Type the total number of buildings at the premises.
Floors	Type total number of floors at the premises.
Read Route	Type the name of the meter reading route to which the premises belongs.

Field	Comments
Read Sequence	Type a number that identifies the sequence in which the meters at the premises are read.
Bill Group	Select the ID of the billing application batch or group to which the premises belongs.

Creating a Premises When the Account Exists

To add a premises when the customer account already exists, follow this procedure.

To add a premises when the customer account already exists

1. Navigate to the Administration - Data screen, then the Addresses view.

   The Addresses list appears with the Address form.
2. In the Addresses list, select an address record.
3. In the Address form, select the check box for the Premise field.
4. In the link bar, click Premises.

   The All Premises list appears with the More Info form.
5. In the list, select the new premises, and complete the necessary fields in the form.

   For more information about some fields, see the table in *Creating a Premises Before the Account Exists*.

Registering a Premises Hookup in Siebel Communications (End User)

Premises can be associated with one or more service points.

Premises can be associated with one or more service points. Adding Service Points to Premises

To add a service point and associate it with a premises, follow this procedure.

To add a service point and associate it with a premises

1. Navigate to the Administration - Data screen, then the Premises view.
2. In the All Premises list, select a premises record.
3. Click the Service Points view tab.
4. In the Service Points list, add a record.

The Service Points dialog box appears with a list of service points that are not associated with any premises.

5. In the dialog box, select an existing service point or create a new service point.
6. In the Service Points list, complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Removal Date	Select the date and time when the service point is removed from the premises.
Location	Type a description of the location of the service point.
Product	Select a product for the service point. Only products for which the value in the product Type field is Service Point and for which the product Service Type field is not null are available for selection.

Associating an Activity with a Premises in Siebel Communications (End User)

End users can create an activity and associate it with a premises for the following reasons:

- Remind themselves of procedures related to a premises that they must perform.
- Communicate procedures related to a premises that other members of the organization must perform.

To associate an activity with a premises

1. Navigate to the Premises screen, then the Premises List view.
2. Drill down on the address of the premises.
3. Click the Activities view tab.
4. In the Activities list, add a record, and complete the necessary fields.

Verifying a Premises in Siebel Communications (End User)

End users can verify the premises that a caller is referring to by looking up the premises record.

To look up a premises

1. Navigate to the Premises screen, then the Premises List view.

2. Drill down on the address of the premises.
   For more information about some fields, see the table in *Creating a Premises Before the Account Exists*.

Viewing Service Point Information in Siebel Communications (End User)

End users can view service point information for the premises.

To view service point information for a premises

1. Navigate to the Premises screen.
2. In the Premises list, click the name of a premises.
3. Click the Meter Points view tab.
   The Meter Points list displays service point information for that premises. Some fields are described in the following table.

Field	Comments
Product	Name of the product that is the service point.
Service Type	Displays the service type for the product that you select.

Viewing Usage History in Siebel Communications (End User)

End users can view usage history for a service point associated with a premises. Usage history is useful for resolving billing inquiries from customers who have recently moved into the premises. Usage history appears as data in lists and charts. End users can view usage history through either the Premises screen or the Accounts screen. For information about viewing usage history through the Accounts screen, see *Accounts in Siebel Communications*.

> **Note:** Usage data can reside in an external data repository and be viewed in Siebel Communications if that type of integration is set up.

To view usage history for a service point

1. Navigate to the Premises screen, then the Premises List view.
2. Drill down on the address of the premises.
3. Click the Meter Points view tab.

4. In the Meter Points list, drill down on the service point of a record.
5. In the Service Point Services list, select a record.
6. In the Usage History list, select the information you want to view from the drop-down list.

Viewing Service Requests for a Premises in Siebel Communications (End User)

End users can view service requests associated with a premises.

To view a service request associated with a premises

1. Navigate to the Premises screen, then the Premises List view.
2. Drill down on the address of the premises.
3. Click the Service Requests view tab.

   The upper list displays accounts and the lower list displays service requests.
4. In the upper list, select an account.
5. In the lower list, select a service request.
6. To view more information about the service request, drill down on the service request number of the service request.

Adding a Service Request for a Premises in Siebel Communications (End User)

End users can add a service request by creating a new service request in the Service Request view of the Premises screen.

To add a service request for a premises

1. Navigate to the Premises screen, then the Premises List view.
2. Drill down on the address of the premises.
3. Click the Service Requests view tab.

   The upper list displays accounts and the lower list displays service requests.
4. In the upper list, select an account.
5. In the lower list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
SR Number	Displays a service request number that is automatically generated.

Field	Comments
Severity	Select a value for the severity of the service request or its impact to the customer. The severity does not have to be the same as the priority.
Priority	Select a value to prioritize the service request. This field describes the importance of the service request. The priority does not have to be the same as the severity.
Owner	Select the user ID of the person handling the service request.

Adding Infrastructure Information in Siebel Communications (End User)

End users can create a record containing infrastructure information that is associated with a premises through an account.

To add infrastructure information to a premises

1. Navigate to the Premises screen, then the Premises List view.
2. Drill down on the address of the premises.
3. Click the Infrastructure view tab.

   The upper list displays accounts and the lower list displays infrastructure.
4. In the upper list, select an account.
5. In the lower Infrastructure list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Attribute	Select the attribute of the infrastructure item. The value you select in the Service Type field determines the values available for selection in this field.
Value	Type the value of the attribute.
Owner	Select the name of the customer or account that owns the infrastructure item.

Additional End-User Tasks for Premises Management in Siebel Communications

This topic contains information about other tasks related to premises.

Caller Verification

When receiving an inbound call, end users first verify and locate the caller. For more information about verifying and locating a caller, see *Siebel Applications Administration Guide* .

Customer Accounts

When a new customer requests service from your company, end users must create an account for the customer. For more information about creating a customer account, see *Accounts in Siebel Communications*.

Sales Orders

When a customer requests a new service, end users must create a sales order. For more information about creating a sales order, see *Siebel Order Management Guide Addendum for Communications* .

Premises and Attachments

At any time, end users can store additional information relating to a premises in the database by associating an electronic file with the premises record. For more information about associating an attachment with a record, see *Siebel Fundamentals* .

Premises and Notes

At any time, end users can store additional information relating to a premises in the database by adding a note and associating it with the premises record. For more information about associating a note to a record, see *Siebel Fundamentals* .

8 Assets in Siebel Communications

Assets in Siebel Communications

This chapter describes how to create, track, and manage assets in Siebel Communications. It includes the following topics:

- *About Assets in Siebel Communications*
- *Scenario for Setting Up Assets in Siebel Communications*
- *Creating an Asset in (End User)*
- *Associating Related Assets with a Primary Asset in Siebel Communications (End User)*
- *Viewing Hierarchical Information for an Asset in Siebel Communications (End User)*
- *Creating a Transaction for an Asset in Siebel Communications (End User)*
- *Viewing Components Associated with an Asset in Siebel Communications (End User)*
- *Adding a Service Request Associated with an Asset in Siebel Communications (End User)*
- *Adding a Change Request to an Asset in Siebel Communications (End User)*
- *Viewing Service Points and Services in Siebel Communications (End User)*

About Assets in Siebel Communications

An *asset* is a product or product component that has been purchased by a customer and installed at, turned on at, or delivered to a customer site. An asset can be a physical product or a service product. Examples include phone pagers, phone handsets, telecommunications services, and Internet services that are active at specific customer sites. An asset is tracked at an asset number level. An asset has attributes, a configuration, and a location.

Asset data is stored in records that can be created, associated with other records, revised, examined, and printed. Asset records are used by customer service representatives (CSRs), field service representatives, service managers, account managers, support renewal agents, and contract administrators. The procedures described in this chapter are primarily used by customer service representatives. For more information about assets, see *Siebel Field Service Guide* .

Siebel Communications uses both the asset number and product name to track the asset. It is the combination of these two fields that makes an asset unique within Siebel applications. Therefore, the same asset number can be shared by different products. For example, a phone jack and a DSL connection can have the same asset number for different products.

Asset management and tracking are important parts of help desk applications and field service applications.Siebel Communications tracks purchases, allows you to create an asset before purchase, and allows you to track the asset's location. The location of serialized products and product components, is recorded, and the movement of these assets from inventory locations to customers or employees is tracked. Assets cannot be deleted, so even inactive services remain in the dialog boxes for selection.

End users can use these methods to create or modify assets in the following ways:

- Manually in the Assets screen.

- Manually in the Activity Part Tracker view, provided the product is serialized. This task is typically done by a field service agent. For more information, see *Siebel Field Service Guide* .
- Automatically using the Siebel Communications application's order management process. For more information, see *Siebel Order Management Guide Addendum for Communications* .

New or modified asset records can also be automatically received from an integrated third-party asset management application. For more information, see *Siebel Enterprise Integration Manager Administration Guide* .

Scenario for Setting Up Assets in Siebel Communications

This topic gives one example of how asset setup might be used. You might use asset setup differently, depending on your business model.

A CSR processes an order for a telecommunications service, which creates an asset for the root service and each component. The customer requests a backup order, for which the CSR creates an asset. The CSR associates the backup asset with the customer's service as a related asset.

At a later time, the customer calls to report a product failure. Noticing that the service has components, the CSR views their details to identify the failed component.

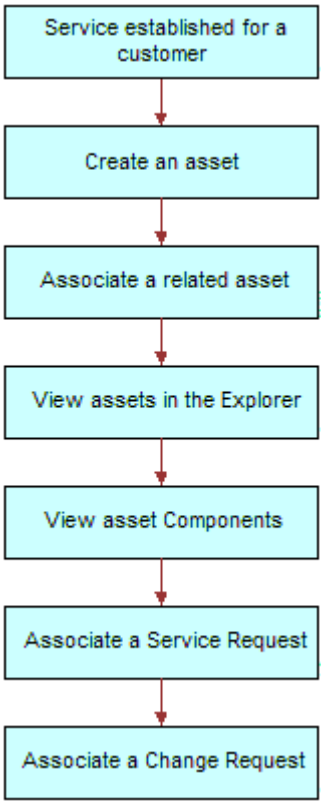
The CSR reviews the history of services for the asset and sees nothing out of the ordinary. The CSR creates a service request for the problem and associates it with the asset component.

A few weeks later, the customer calls again with a suggestion for improving the service. The CSR enters a change request and associates it with the customer's asset.

For another customer, the billing application shows an exception (usage data beyond the normal range). This alerts the CSR, who contacts the customer to verify the usage before determining if the service should be suspended.

The following image summarizes the sequence of steps an end user might use to manage asset information in Siebel Communications. The steps are as follows:

- Establish a service for a customer.
- Create an asset.
- Associate a related asset.
- View assets in the Explorer.
- View asset components.
- Associate a service request.
- Associate a change request.



Creating an Asset in Siebel Communications (End User)

End users can create assets and enter asset information in Siebel Communications.

Note: Assets can also be created through the order management module. For more information, see *Siebel Order Management Guide Addendum for Communications* .

To create an asset

1. Navigate to the Assets screen, then the List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Asset #	Displays an asset number that is automatically generated. This field accepts any string that includes 100 or fewer characters.
Qty	Type the quantity of the asset.

Field	Comments
Serial #	Displays the serial number for the service point or the service ID from the order.
Account	Select the account associated with the asset.

Associating Related Assets with a Primary Asset in Siebel Communications (End User)

End users can associate one or more assets with another asset and designate their relationships, such as backup or option. An asset with which other assets are associated is a *primary asset*.

To associate a related asset with a primary asset

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the primary asset.
4. Click the Relationships view tab.
5. In the Relationships list, add a record, and complete the necessary fields.

Viewing Hierarchical Information for an Asset in Siebel Communications (End User)

End users can view the hierarchical information for assets, including the relationships of assets and their components.

To view hierarchical information for an asset

1. Navigate to the Assets screen, then the Assets Explorer view.
2. In the explorer tree, select an asset.
3. Expand the asset branch to display subsidiary records.

   When you click the asset name in the explorer tree, the Assets list highlights the asset selected in the explorer and displays further details in the main pane. The fields are the same as the fields in the Assets list in the All Assets or My Assets view.

Creating a Transaction for an Asset in Siebel Communications (End User)

An asset transaction captures the movement of components of an asset, such as installation or part replacement. End users can create transactions for an asset.

To create a transaction for an asset

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the asset.
4. Click the Transactions view tab.
5. In the Transactions list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Transaction	Select the date and time of the transaction.
Asset #	Select the number of the subasset (component) associated with the transaction (for example, the part installed in the main asset).

Viewing Components Associated with an Asset in Siebel Communications (End User)

End users can view components that are associated with an asset. Components or subassets are generally set up when the asset is created.

Note: Components are automatically added, as appropriate, when you add some transactions in the Transactions view.

To view components associated with an asset

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the asset.
4. Click the Components view tab.

The Components list displays information about the components.

Adding a Service Request Associated with an Asset in Siebel Communications (End User)

End users can add service requests associated with an asset.

To add a service request associated with an asset

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the asset.
4. Click the Service Requests view tab.
5. In the Service Requests list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
SR #	Displays a service request number that is automatically generated.
Last Name	Select the name of the account contact.
Owner	Select the user ID of the owners of the service request. You can select multiple owners.

Adding a Change Request to an Asset in Siebel Communications (End User)

End users can add change requests to an asset by either creating new change requests or associating existing change requests with the asset.

To add a change request associated with an asset

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the asset.
4. Click the Change Requests view tab.
5. In the Change Requests list, add a record, and complete the necessary fields.

Some fields are described in the following table.

Field	Comments
Type	Select the type of change request.
Owner	Select the user ID of the person assigned to deal with the change request.
Area	Select the general product area associated with the change request.
Subarea	Select the type of product associated with the change request.
Substatus	Displays the substatus of the change request. This field indicates whether the change request is assigned to an employee for resolution.
Priority	Select the priority for addressing the change request.

Viewing Service Points and Services in Siebel Communications (End User)

End users can view the services associated with each service point and usage details for each service, but they cannot add a service point from this view. For information about adding a service point, see *Registering a Premises Hookup in Siebel Communications (End User)*.

Services are associated with service points when a CSR submits a New or Modify order for a service. When a CSR submits a Disconnect order, the service is made inactive. For more information about the employee use of order management, see *Siebel Order Management Guide Addendum for Communications* .

To view service point and service information

1. Navigate to the Assets screen, then the List view.
2. From the Show drop-down list, select All Assets.
3. Drill down on the asset number of the asset.
4. Click the Service Point Services view tab.
5. To see various types of usage information for a service, complete the following steps:
    a. In the Service Point Services list, select the service.
    b. In the Usage History view, select an option from the drop-down list.

9 Opportunities in Siebel Communications

Opportunities in Siebel Communications

This chapter explains procedures for creating and managing opportunities in Siebel Communications. It includes the following topics:

- *About Opportunities in Siebel Communications*
- *Scenario for Creating Opportunities in Siebel Communications*
- *Creating an Opportunity in Siebel Communications (End User)*
- *Associating an Account with an Opportunity in Siebel Communications (End User)*
- *Associating a Product with an Opportunity in Siebel Communications (End User)*
- *Creating a Quote for an Opportunity in Siebel Communications (End User)*
- *Creating a Profile for an Opportunity in Siebel Communications (End User)*
- *Associating a Site with an Opportunity in Siebel Communications (End User)*
- *Associating a Partner with an Opportunity in Siebel Communications (End User)*
- *Additional End-User Tasks for Opportunity Management in Siebel Communications*

About Opportunities in Siebel Communications

An opportunity is any lead that can result in a sale. Some opportunities are generated from campaign leads, while others are created by your company's sales representatives. Through Siebel Communications, sales representatives can manage their sales opportunities for business and residential customers. Specifically, they can perform the following tasks:

- View a list of all opportunities in the database or only those opportunities specifically assigned to them.
- Create new opportunities.
- Track the status of an opportunity through the sales cycle, from creation to closure.
- Update information about opportunities as they move through the sales cycle.
- Generate quotes that are based on opportunities.
- Use opportunity profiles to record additional information and review customer responses to predefined questions.

Administrators involved with opportunities benefit from reading this chapter. It describes how your CSRs create and update opportunities. After becoming familiar with the end-user procedures, you can customize the software to fit your company's needs.

For information about hierarchical products or multiple price types with recurring and nonrecurring fees, see the following guides:

- *Siebel Product Administration Guide*

- *Siebel Pricing Administration Guide*
- *Siebel Order Management Guide Addendum for Communications*

Scenario for Creating Opportunities in Siebel Communications

This topic gives one example of how opportunity creation might be used. You might use opportunity creation differently, depending on your business model.

While attending a trade show, a sales representative meets the director of a small company, who expresses interest in purchasing several products from the sales representative's company. She asks the prospective customer to complete a form and assures him that she will contact him with specific product pricing.

Back at her office, the sales representative creates a new account and enters contact information in Siebel Communications. Then she creates a new opportunity and associates it with this new account.

As part of the opportunity description, she indicates the probability for the sale, estimates the potential revenue for the sale, and designates the stage of the sale.

Next she associates products with the opportunity and specifies product information, such as the product type, quantity, and pricing.

To evaluate some preliminary quotes for the prospective customer, she creates several quotes. For products containing subproducts, she selects the first-level product name to ensure proper revenue calculations. She also reviews setup fees and recurring fees for the products.

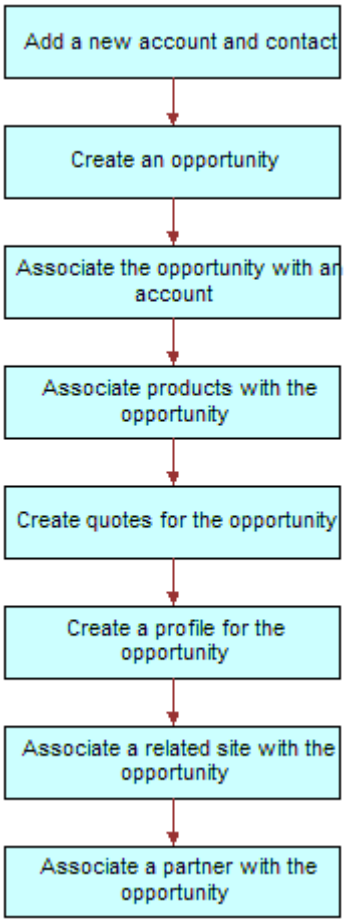
She calls the prospective customer to set up a meeting to go over her quotes. During that conversation, she determines that he might also be interested in another product that her company offers. She updates the product information and notices that the additional product triggered an overall discount generated by the rules established through Siebel Communications.

The prospective customer also mentions that his company is expanding to an additional location. The sales representative enters that location as a related site for the same opportunity.

After confirming the meeting for the next day, she hangs up and continues her preparations for the meeting. While doing so, it occurs to her that another customer might be able to take advantage of the same discount. She enters that customer account as a partner for the opportunity.

The following image summarizes the sequence of steps an end user might use with opportunities in Siebel Communications. The steps are as follows:

- Add a new account and contact.
- Create an opportunity.
- Associate the opportunity with an account.
- Associate products with the opportunity.
- Create quotes for the opportunity.
- Create a profile for the opportunity.
- Associate a related site with the opportunity.
- Associate a partner with the opportunity.



Creating an Opportunity in Siebel Communications (End User)

An opportunity is generated in the Campaigns screen or is added manually. Every time end users identify an opportunity, they can create a new record.

To create an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Revenue	Type the expected revenue for the opportunity in specific currency.

Field	Comments
Probability %	Select the probability of completing the sale.
Sales Team	Select the user ID for the sales team of the opportunity.
Primary	Displays your use ID for the opportunity because you create the opportunity. Only managers can change this field for a sales team member.
Channel	Select the distribution strategy in your organization for the opportunity.
Expected Value	Displays the expected value for the opportunity when you populate the Probability % and Revenue fields.
Source	Select the source of the data. The Source Type field reflects the source type associated with this selection.

Associating an Account with an Opportunity in Siebel Communications (End User)

End users can associate an opportunity with an account. This association allows them to track all important information for a customer.

To associate an opportunity with an account

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. In the Account field of the opportunity, select an account.

Associating a Product with an Opportunity in Siebel Communications (End User)

End users can associate products with an opportunity and provide customers with detailed information about the products that interest them.

To associate a product with an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.

2. Drill down on the name of the opportunity.
3. Click the Products view tab.
4. In the Products list, add a record, and complete the necessary fields.
5. In the Product field, select a product.

Creating a Quote for an Opportunity in Siebel Communications (End User)

End users can create a quote for an opportunity, view all quotes for an opportunity, or update an opportunity with product information taken from the Quotes view. For the updating opportunity feature to work, the following conditions must be met:

- In the Product Administration view, the number of occurrences must be greater than 0 for the product. For more information, see *Siebel Product Administration Guide* .
- In the Price List list of the Quotes screen, all products end users can associate with the opportunity or quote must be defined as Price List line items.
- In the Line Items view of the Quotes screen, the Extended Price of the quote line item must be more than 0.
- In the Quotes list of the Opportunities screen, the Price List must be selected. For more information, see *Associating a Product with an Opportunity in Siebel Communications (End User)*.

If these conditions are not met, then Siebel Communications cannot generate revenue line items for the Opportunity. The revenue is note accurate until a quote is configured and the opportunity is updated from it.

To create a quote for an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. Drill down on the name of the opportunity.
3. Click the Quotes view tab.
4. In the Quotes list, complete the following steps:
   a. Click Auto Quote.

      A new quote is created with default values in some fields.
   b. In the Price List field, select a price list, and complete the necessary fields for the new quote.
   c. Drill down on the name of the quote.

      The Quote form appears with the Line Items view.
5. In the Line Items list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Extended Net Price	Displays the extended net price. This field is calculated by multiplying the net price by the quantity.
MRC Subtotal	Displays the total monthly recurring charges for the line item.

Field	Comments
NRC Subtotal	Displays the total nonrecurring charge for the line item.
UoM	Displays the unit of measure for the line item. This field value depends on the price type. For a one-time fee, the value is for each unit. For recurring fees, the value is for a time period, such as for each month or for each quarter.

6. To modify line item details, complete the following steps:
   a. Click Line Details in the link bar.

      > **Note:** Administrators specify much of the product information in the Administration - Product screen. When the products are added to the quote as line items, default product information is populated for some line item fields.

   b. To adjust a discount, edit the field values in the Pricing Details section of the form.

      For more information about line item details, see *Siebel Order Management Guide Addendum for Communications* .
7. In the Quote form, click Update Opportunity.

   Revenue line items are added to the opportunity for every one-time or recurring charge in every product.

Creating a Profile for an Opportunity in Siebel Communications (End User)

End users can launch a call script that helps them define qualifying information about an opportunity. The script guides them through a series of questions to answer.

After answering the questions, end users can later analyze the information. For example, they can use charts to see which opportunities qualify as part of their target market or they can use queries to find opportunities that match specific criteria.

To create a profile for an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. Drill down on the name of the opportunity.
3. Click the Profile view tab.
4. In the Profile form, click Script to launch the wizard.
5. Answer the questions in the script.

Associating a Site with an Opportunity in Siebel Communications (End User)

The Opportunity Account defines the primary account related to the opportunity. End users can associate accounts for satellite offices or subsidiaries to the opportunity.

To associate a related site with an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. Drill down on the name of the opportunity.
3. Click the Related Sites view tab.
4. In the Related Sites list, add a record.
5. In the Account field, select an account.

Associating a Partner with an Opportunity in Siebel Communications (End User)

The Opportunity Account field defines the primary account related to the opportunity. When additional accounts are involved in an opportunity, end users add them to the opportunity as partners.

For an account to appear in the list of partners, it must have a check mark for the Partner field in its account form.

To associate a partner with an opportunity

1. Navigate to the Opportunities screen, then the Opportunities List view.
2. Drill down on the name of the opportunity.
3. Click the Partners view tab.
4. In the Partners list, add a record.
5. In the Add Partner dialog box that appears, select an account.

   The dialog box lists only accounts that have the Partner field selected in the Accounts screen, More Info view.

Additional End-User Tasks for Opportunity Management in Siebel Communications

For more information about other tasks related to opportunities, see *Siebel Applications Administration Guide* .

Account and Contact Creation

When adding a prospective customer to the database, end users often first create an account and enter contact information. For more information about creating a customer account, see *Accounts in Siebel Communications*. For more information about entering a contact, see *Contacts in Siebel Communications*.

10 Billing in Siebel Communications

Billing in Siebel Communications

This chapter describes the procedures for handling customer inquiries about their invoices. It includes the following topics:

- *About Billing in Siebel Communications*
- *Scenario for Using Billing in Siebel Communications*
- *Generating Credit, Fraud, and Usage Information in Siebel Communications*
- *Setting Up the Invoice Image Feature in Siebel Communications*
- *About Accessing or Updating Billing Information in Siebel Communications*
- *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*
- *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*
- *Viewing Usage Details in Siebel Communications (End User)*
- *Viewing Unbilled Charges in Siebel Communications (End User)*
- *Process of Creating Adjustments in Siebel Communications (End User)*
- *Process of Making Payment Arrangements in Siebel Communications (End User)*
- *Requesting a Duplicate Invoice in Siebel Communications (End User)*
- *Updating a Billing Profile in Siebel Communications (End User)*
- *Additional End-User Tasks for Billing Management*

About Billing in Siebel Communications

The procedures described in this chapter are usually performed by customer service representatives (CSRs). Using Siebel Communications, CSRs can retrieve past invoices, current unbilled charges, and other invoice details. CSRs can also arrange payment plans, record payments against an outstanding balance, or request adjustments to the customer's records in the event of an incorrect bill.

Administrators involved with billing benefit from reading this chapter. It describes how your CSRs access billing information and update billing accounts. After becoming familiar with the end-user procedures, you can customize the software to fit your company's needs.

Billing processes are integrated with an external billing application that Siebel Communications accesses to retrieve information, such as the customer's last statement. That information is stored temporarily in Siebel database tables.

Performance of the billing screens depends on both the configuration and speed of retrieval from the external billing application. Configurators can set up Siebel Communications so that all messages are sent and received from the back-office application in real-time or batch mode. The results of these messages can also be stored in Siebel Communications database tables, allowing CSRs to resolve them in real-time.

Your company is responsible for performing the integration of Siebel Communications with billing applications. For more information, see *Overview: Siebel Enterprise Application Integration* . For information about setting up profiles

that are used to run credit ratings, record billing preferences, or store tax exemption information, see *Profiles in Siebel Communications*.

Scenario for Using Billing in Siebel Communications

This topic gives one example of how billing might be used. You might use billing differently, depending on your business model.

A CSR at a telecommunications company receives a call from a business customer. The customer has just received his December invoice for mobile services and believes that his company was overcharged for international phone calls.

The CSR verifies the caller's identity and then accesses the customer's billing information, primarily maintained in an external billing system. With the Siebel front-office system, the CSR can access billing information as if it were stored locally.

The customer has a specific question about various international calls in his December invoice. The CSR looks at a list of recent invoices and finds the December statement. She brings up an image of the invoice and notices that the customer has been charged $300 for international calls.

The CSR wants to discuss the individual international calls to confirm the company made these calls. She first retrieves the customer's billing details information for the December billing period. She then sorts the calls by rate plan (that is, international) and informs the customer that all calls were made to the same number in Frankfurt, Germany. She also checks to see the other invoices for other months, and sees if this international calling pattern is consistent. It is not. The customer realizes that an employee has been making calls without the customer's knowledge.

The CSR mentions to him that he can request a block placed on his account for all international calls by creating a fraud profile for his account. The customer asks to check his calls for the current month to make sure that there will not be unexpected surprises in the next month's invoice. The CSR reviews the unbilled charges and reports that there are no unusual charges.

While looking at the invoice details, however, she notices that the customer is being charged a city tax, from which his company is exempt. The customer has been paying this amount for the last few months. To reimburse him for the error, she can enter an adjustment request against either the entire invoice or specifically against a line item in that invoice. She decides to associate the request with the invoice line item in this case.

She enters the amount of the tax and explains the reason for the request. She then submits the adjustment for processing by the external billing application. If it is accepted, then this adjustment amount is credited immediately to the balance of the account of the customer and is printed on the customer’s next invoice.

Before she forgets, she accesses the customer's exemption profile and makes a note that he is exempt from city tax, so that he is not incorrectly charged in the future.

The customer also wants to pay his outstanding balance. The CSR finds the most recent invoice, which is for the month of January. She creates a payment against the invoice, enters the customer's credit card information, and submits the payment for processing by the external billing application.

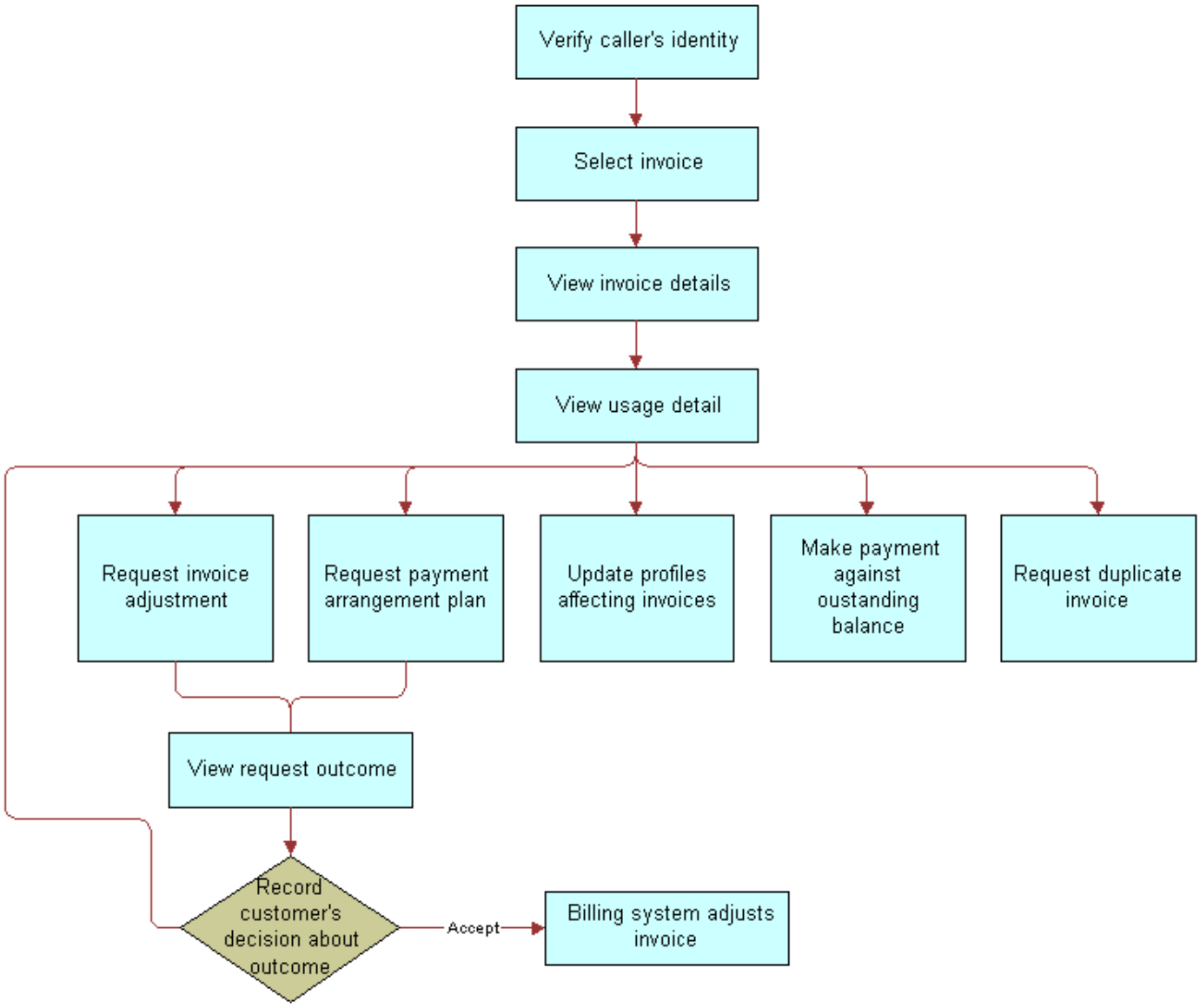
Before hanging up, the customer has one last request. He wants to start receiving invoices by email. The CSR goes to his billing profile, selects the appropriate Bill Media, and enters his email address. The customer thanks him for his time and hangs up.

After lunch, the CSR receives a phone call from another customer, who needs to arrange a payment plan. His recent invoice was considerably higher than normal, so he wants to spread out the payment over the next three months. After the CSR verifies that his credit is still good, she enters the payment arrangement request and notes the special

circumstances. The external billing application processes the request and approves it in a few moments. The CSR informs the customer that his request has been accepted and that he can see that additional amount in the next three invoices.

The following image summarizes the sequence of procedures an end user might use to update billing information in Siebel Communications. The steps in the procedure are as follows:

1. Verify callers identity.
2. Select invoice.
3. View invoice details.
4. View usage details.
    - Request invoice adjustment.
        - View request outcome.
    - Request payment arrangement plan.
        - View request outcome.
    - Update Profiles affecting invoices.
    - Make payment against outstanding balance.
    - Request duplicate invoice.
5. Record customer's decision about outcome.
6. Billing system adjusts invoice.



Generating Credit, Fraud, and Usage Information in Siebel Communications

Siebel Communications contains a view for administrators that simulates an external billing application. From that view, you can create credit, fraud, and usage details for a billing account. End users do not have access to the view.

CAUTION: Siebel Communications billing administration views are part of the Billing Management option. Exclusively for *testing purposes*, these views are used to simulate an external billing application and therefore must not be used in a production environment. For this reason, they are not part of release documentation.

To generate credit, fraud, and usage information

1. Navigate to the Billing Data Administration screen, then the Billing view.
2. In the Billing Accounts list, drill down on the name of the account.
3. Click the Credit Alerts, Fraud Alerts, or Usage Detail view tabs.
4. In the appropriate list, add a record, and complete the necessary fields.

Setting Up the Invoice Image Feature in Siebel Communications

In the Siebel application, end users can view the image of a customer's bill from the external billing application, if the administrator sets up this feature.

Bill Statement Host

When end users click the Invoice Image view tab of the Invoices screen, the invoice image that appears comes from the Bill Statement host. This image is not stored in the Siebel application. Complete the procedure in this topic to set up the integration between the Bill Statement host and the Siebel application.

To configure the integration with the Bill Statement host

1. Navigate to the Administration - Integration screen, then the WI Symbolic URL List view.
2. In the Host Administration list, select the host with a value of BillStatementHost in the Virtual Name field.
3. In the Name field for this host, enter the name of your invoice host.
4. From the Show drop-down list, select Symbolic URL Administration.
5. In the Symbolic URL list, complete the following steps:
   a. Select the record with a value of BillStatement in the Name field.

      > **Note:** BillStatement is the name of the control defined in Siebel Tools. For more information, see *Using Siebel Tools* .

   b. For this record, complete the fields in the following table.

Field	Comments
URL	Type the URL in which the bill image appears.
Host Name	Select the name of the invoice host that you enter in Step 3.
Fixup Name	Select the fix up name. A value of InsideApplet displays the image in the current applet. A value of OutsideApplication displays the image in a new pop-up window.

6. Restart the application.

   The invoice image is now obtained from the Bill Statement URL.

Web Center Content Host

When end users click the View Invoice button in the Bills view tab of the Billing Profile screen, the invoice image that appears comes from the Web Center Content (WCC) host. This image is not stored in the Siebel application. Complete the procedure in this topic to set up the integration between the WCC host and the Siebel application.

To configure the integration with the Web Center Content host

1. Navigate to the Administration - Integration screen, then the WI Symbolic URL List view.
2. In the Host Administration list, select the host with a value of wccserver in the Virtual Name field.
3. In the Name field for this host, enter the name of your invoice host.
4. From the Show drop-down list, select Symbolic URL Administration.
5. In the Symbolic URL list, complete the following steps:
   a. Select the record with a value of WCC Invoice Popup Applet in the Name field.

      Note: WCC Invoice Popup Applet is the name of the control defined in Siebel Tools. For more information, see *Using Siebel Tools* .

   b. For this record, complete the fields in the following table.

Field	Comments
URL	Type the URL in which the bill image appears.
Host Name	Select the name of the invoice host that you enter in Step 3.

   c. Change the values for the records in the Symbolic URL Arguments list to accommodate your WCC host.

      For example, if the user ID and password for the WCC host are the same as the user ID and password for the Siebel application, then change the Argument Value field from UserLoginid to UserSiebelLoginid for the record with a value of j_username in the Name field, and change the Argument Value field from UserLoginPassword to UserSiebelLoginPassword for the record with a value of j_password in the Name field.

      If the user ID and password for the WCC host are different from the user ID and password for the Siebel application, then complete Step 6.

   d. Repeat Step a through Step c for the record with a value of WCC Invoice Popup Applet_Demo in the Name field.
6. If the user ID and password for the WCC host are different from the user ID and password for the Siebel application, then complete the following steps so that end users do not have to enter these credentials a second time:
   a. Navigate to the Administration - Integration screen, then the SSO Systems Admin List view.

b. In the SSO Systems Administration list, add a record, and complete the fields in the following table.

Field	Comments
System Name	Type WCC Invoice URL.
Symbolic URL Name	Select WCC Invoice Popup Applet or WCC Invoice Popup Applet_Demo.
Description	Type WCC URL Credentials

c. In the SSO System Users list, add a record, and complete the fields in the following table.

Field	Comments
Siebel Login Name	Select the user ID for the Siebel application.
Login Name	Type the WCC user ID.
Password	Type the WCC password.

7. Restart the application.

   The invoice image is now obtained from the WCC URL.

About Accessing or Updating Billing Information in Siebel Communications

Siebel Communications allows end users to access the same invoice information through different views. By selecting one view or another, end users can find the information most relevant to them, according to the procedure they want to perform at that moment.

Most views allow end users to record interactions with a customer and to update the customer's information. The functionality available to end users depends on the end user access rights. From these views, end users can access information about billing, such as the account balance, invoice history, payment history, and adjustment history.

> **Note:** The procedures described in this chapter contain the most frequently used method for performing each task, including the view to access, but other methods might exist.

End-User Views

The end-user views follow:

- **Billing Portal view (call center agent).** The Billing Portal view summarizes the billing information that a call center agent most likely needs to review while talking to a customer. It also makes it easy for call center agents to handle the most common transactions associated with invoices.

  The Billing Portal view serves as a starting point for most customer inquiries. Among other tasks, the Billing Portal views allow call center agents to complete the following tasks:

  - Review the account status, such as the balance, delinquency information, and pending financial transactions (credit and debit) that have not yet been applied to the balance.
  - View the most recent invoices of a customer and access detailed information about an invoice.
  - View the history of payments and adjustments.

    This history is useful if customers claim that they have already made a payment and that the balance is not correct.
  - Access the usage history of different services that the customer has so that unexpected hikes can be explained to the customer.
  - Begin transactions, such as recording payments or adjusting balances.

  The following describes the information available in the Billing Portal view.

Views	Description
Account	Displays account information that corresponds to the Accounts screen, More Info view. End users can edit this information.
Account Balance	Displays balance information for the account. Retrieves this information from an external billing application. Information is read-only. **Pay button.** Navigates to the Invoices screen, Payments view, in which a payment has been created to settle the entire account balance. **Refresh button.** Updates the information with the most current data.
Invoice History	Displays information from the Invoices screen. Information is read-only. **Invoice # hyperlink.** Navigates to the Invoices screen, Line Items view.
Payment History	Displays the payment history for the account. Information is read-only. **Payment # hyperlink.** Navigates to the Invoices screen, Payments More Info view, Invoices subview, in which they record payments.

Views	Description
Adjustment History	Displays a subset of the information from the Invoices screen, Adjustment Requests view. Information is read-only. **Request # hyperlink.** Navigates to the Adjustment Requests view, Line Items subview.
Additional Info	**Billing Profile hyperlink.** Navigates to the Accounts screen, Profiles view, Billing Profile form. **Usage Detail hyperlink.** Navigates to the Accounts More Info form, Usage Detail view. **Unbilled Charges hyperlink.** Navigates to the Account More Info form, Unbilled Charges view.

- **Invoices views (call center agent).** The Invoices views allow call center agents to view all bill details. These views are generally accessed to reply to customer complaints regarding a specific charge on the bill. The Invoices views also allow call center agents to start transactions, such as adjusting an invoice, recording a payment against the invoice, requesting a bill duplicate.

Time Zones in Date-Time Fields

The search functions of the Billing Profile views include Start Date and End Date fields, which are used to search the billing information using date range criteria. In these fields, end users can select a date and time, and can also select the time zone.

The Start Date and End Date fields of the Billing Profile screen are of UTC Date Time type, and send the values selected by users in UTC format (ISO Standard). The UTCCanonical user property, when set to Y, enables the feature that converts the date and time values to UTC format.

Process of Accessing or Updating Billing Information in Siebel Communications (End User)

To find and display billing information, perform the following tasks:

- *Accessing Billing Information*
- *Viewing Balance Groups for a Billing Profile*
- *Viewing Unbilled Services for a Billing Profile*
- *Viewing Bills for a Billing Profile*
- *Viewing Payments for a Billing Profile*
- *Viewing Adjustments for a Billing Profile*
- *Viewing Account Balances for Nonpaying Accounts*

- *Viewing Invoices*

Accessing Billing Information

To resolve customer inquiries, end users first find the billing account. In this account, they generally record payments. For most other transactions, end users record information at the invoice level.

End users can access the most recent invoice or retrieve past invoices. They can view invoice details, such as line items, after selecting the invoice. In addition, they can view the image of an already-sent invoice bill in HTML format.

End users can navigate to the billing profile portal to view details about a billing profile. These details include balance groups, unbilled usage, bills, payments, and adjustments. You can return to the billing profile portal from the views accessed through the portal by clicking the Billing Profile link at the start of the view.

> **Note:** Some customers have a consolidated billing account for a number of service items. Siebel Communications allows end users to view charges associated with a billing account, service account, or parent account. For more information about accounts and subaccounts, see *Accounts in Siebel Communications*.

To access billing information through the Billing Portal view, follow this procedure.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To access the billing profile portal

1. Navigate to the Accounts screen, then the Accounts List view.
2. In the Accounts list, click the Name field for the account.
3. In the Account Summary view, do one of the following:
   - Scroll to the Billing Profile list, and click the link in the Name field of the appropriate billing profile.

     The service account is set to the paying account. The Profile Portal view shows all ordered usage of the assets of the paying account, along with rolled-up amounts for usage by nonpaying child accounts of the paying account, if any, for that billing profile.
   - Scroll to the Installed Assets list, and click the link in the Billing Profile field of the appropriate asset.

     The service account is set to the paying account. The Profile Portal view shows all ordered usage of the assets of the paying account, along with rolled-up amounts for usage by nonpaying child accounts of the paying account, if any, for that billing profile.
   - Scroll to the Billing Items list, and click the link in the Billing Profile field of the appropriate billing item.

     The service account is set to the account for which the current billing item was ordered, which might be either a paying account or a nonpaying child account. Consequently, if you want to display usage for the account currently displayed in the Account Summary view, then make sure to drill down on the Billing Profile field of a billing item ordered for that current account.

     - For a paying account, the Profile Portal view shows all ordered usage of the assets of the paying account, along with rolled-up amounts for usage by nonpaying child accounts of the paying account, if any, for that billing profile.
     - For a nonpaying child account, the Profile Portal view shows all ordered usage of the assets of the nonpaying child account only, for that billing profile.

   The billing Profile Portal view displays forms for the billing profile details and the billing profile balance summary. View tabs for Balance Group, Unbilled Usage, Bills, Payments, and Adjustments appear after the

forms. The Balance Group view tab displays a list of balance groups for the billing profile. Except for the Adjustments view, these views use virtual business components to bring real-time data from the external Billing and Revenue Management application.

4. In the Balance Summary form, click Refresh to retrieve up-to-date data from the billing application.

Viewing Balance Groups for a Billing Profile

In a billing profile, end users can view balance groups. A *balance group* is a collection of resources associated with one or more services within a bundle of services for an account. Examples of resources include:

- 1000 free minutes applicable to all the phone lines in a family plan.
- 1 frequent flyer mile for each minute of time on any phone line in a family plan.
- 3 MB of data to download at no charge.
- 100 Short Message Services (SMS) applicable to mobile and wire line services.

A balance group can have a single currency balance and multiple noncurrency balances (for example, the balance of unused phone minutes). Though customers are generally not aware of balance groups in a bundle, they understand how resources are applicable to the services within a bundle.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To view balance groups for a billing profile

1. Navigate to the Billing Profile portal.

   For information on the billing profile, see *Accessing Billing Information*
2. Click Refresh to retrieve up-to-date data from the billing application.
3. To view the currency and noncurrency balances as well as the services for a group, select that group in the Balance Group list and scroll down to the Balance list and to the Services list.
4. To view validity details for a balance, select that balance in the Balance listing.

   The Balance Details list displays the validity details.

Viewing Unbilled Services for a Billing Profile

In a billing profile, end users can view the services that the customer used but that the company has not yet billed. They can view unbilled service details such as item charges (for example, cycle forward charges and usage charges), events (for example, phone call details), and noncurrency balance totals for events (for example, the balance of unused phone minutes).

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To view unbilled services for a billing profile

1. Navigate to the Billing Profile portal.

   For information on the billing profile, see *Accessing Billing Information*.
2. Click the Unbilled Usage view tab to display a list of service charges that the company has not yet billed for the billing profile.

3. Click Refresh to retrieve up-to-date data from the billing application.
4. To see rolled-up totals of unbilled service charges for this account (and its nonpaying child accounts, if any), view the fields of the Balance Summary form in the upper part of the view.
5. To view the item charges for a service charge, select that service charge from the Service Charges list and scroll down to the Item Charges list.
6. To view the events for an item charge, click the Net Amount field for that item charge.

   The Event Details list displays.
7. To find specific events in the Event Details list, click Search, enter search criteria, and click Go.
8. To view noncurrency balance totals for an event, select an event for which the Non-Currency check box is selected, click View Detail, and scroll down to the Non-Currency Balance Impacts for Event list.

   The Non-Currency Balance Impacts for Event list is populated with the noncurrency balance totals for the event.

   > **Note:** If the Non-Currency check box is not selected, noncurrency balances are not available for the event, and the View Detail button is disabled.

Viewing Bills for a Billing Profile

In a billing profile, end users can view additional details for bills. They can view billed service details such as item charges (for example, cycle forward charges and usage charges), events (for example, phone call details), and noncurrency balance totals for events (for example, the balance of unused phone minutes). They can also view payments and adjustment request items for bills. Adjustment request items consist of adjustments, settlements, refunds, and write-off amounts.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To view bills for a billing profile

1. Navigate to the Billing Profile portal.

   For information on the billing profile, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click Refresh to retrieve up-to-date data from the billing application.
4. Click the Bill Number field for a bill that you want to view.

   The Bill Details form for the bill displays and a list of service charges for that bill displays in the Service Charges view tab.
5. To view a list of payments for the bill, click the Payments view tab.
6. To view a list of adjustment request items for the bill, click the A/R Items view tab.
7. To view the list of service charges for the bill, click the Service Charges view tab.
   a. To view the item charges for a service charge, select that service charge from the Service Charges list and scroll down to the Item Charges list.
   b. To view the events for an item charge, click the Net Amount field for that item charge.

      The Event Details list displays.
   c. To find specific events in the Event Details list, click Search, enter search criteria, and click Go.
   d. To view noncurrency balance totals for an event, select an event for which the Non-Currency check box is selected, click View Detail, and scroll down to the Non-Currency Balance Impacts for Event list.

The Non-Currency Balance Impacts for Event list is populated with the noncurrency balance totals for the event.

> **Note:** If the Non-Currency check box is not selected, noncurrency balances are not available for the event, and the View Detail button is disabled.

Viewing Payments for a Billing Profile

In a billing profile, end users can view payments for the profile.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To view payments for a billing profile

1. Navigate to the Billing Profile portal.

   For instructions, see *Accessing Billing Information*.
2. Click the Payments view tab to display a list of payments for the billing profile.
3. Click Refresh to retrieve up-to-date data from the billing application.
4. To find specific payments in the Payments list, click Search, enter search criteria, and click Go.

Viewing Adjustments for a Billing Profile

In a billing profile, end users can view adjustments for the profile.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To view adjustments for a billing profile

1. Navigate to the Billing Profile portal.

   For instructions, see *Accessing Billing Information*.
2. Click the Adjustments view tab to display a list of adjustment requests for the billing profile and scroll down to the Line Items list.
3. To view the line items for an adjustment request, select that adjustment request in the Adjustment Requests list.

Viewing Account Balances for Nonpaying Accounts

In the case where the billing account of an asset is different from the service account of the asset, the integration creates a hierarchy in the external Oracle Communications Billing and Revenue Management application to represent the relationship. The service account is modeled as the nonpaying child account of the billing account. To view the balance of a service account that is the nonpaying child account of a billing account, follow the procedures in this topic.

To look up the balance of a nonpaying service account at the request of the user of that account, follow this procedure.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To look up the balance of a nonpaying service account for the user

1. Navigate to the Accounts screen, then the Accounts List view.
2. Find the account whose nonpaying service account balance you want to view.
3. Drill down on the Name field.
4. Click the Account Summary view tab.
5. In the Installed Assets list, locate the service for which you want to retrieve the balance.
6. Drill down on the Billing Profile field.

   The Billing Profile screen, Balance Group view appears. The integration retrieves the billing profile of the nonpaying service account and displays it in this view.
7. To view the bills associated with the displayed nonpaying service account, click the Bills view tab.

To look up the balance of a nonpaying service account at the request of the payer of that account, follow this procedure.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

To look up the balance of a nonpaying service account from the paying account

1. Navigate to the Accounts screen, then the Accounts List view.
2. Find the paying account.
3. Drill down on the Name field.
4. Click the Account Summary view tab.
5. In the Billing Items list, locate the service for which you want to retrieve the balance.
6. Drill down on the Billing Profile field.

   The Billing Profile Summary screen displays the billing details of the selected service account. The Service Account field in the Billing Profile form is set to the service account of the service, and the billing information corresponds to the combination of the billing profile and the service account.

Viewing Invoices

Use the procedures in this topic to access and view billing information in invoices.

This task is a step in *Process of Accessing or Updating Billing Information in Siebel Communications (End User)*.

Accessing Invoice Views

To access billing information through the Invoices view, follow this procedure.

To access the Invoice views

1. Navigate to the Invoices screen.
2. In the Show drop-down list, select All External Invoices.

   The Invoices list displays the bills that are generated by an external application. The information in the Invoices list (header information) is generally stored in the Siebel database. However, due to the large volume of data, it is not recommended that your company store the Invoice Line Item information in the Siebel database, but instead access that data in real time through integration.

> **Note:** When you select All Invoices from the Show drop-down list, the Invoices list displays all invoices, including external invoices.

3. In the Invoices list, perform a query in the Bill To Account field for the account name.
   The Invoices list displays all invoices for that account, sorted by invoice number.
4. In the Invoices list, drill down on the invoice number of the invoice you want to view.
5. Click a view tab to access specific information for that invoice.

Viewing Invoice Line Items

To view line items for an invoice, follow this procedure.

To view invoice line items

1. Navigate to the Invoices screen.
2. In the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
   The Invoices form appears with the Line Items list.

Viewing Invoice Images From the Invoices Screen

To view the image of an invoice from the Invoices screen, follow this procedure.

To view the image of an invoice from the Invoices screen

1. Navigate to the Invoices screen.
2. In the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Invoice Image view tab.
   The invoice image appears in the Invoice Image view if the administrator sets up the integration between the Bill Statement host and the Siebel application. For more information, see *Setting Up the Invoice Image Feature in Siebel Communications*.

Viewing Invoice Images From a Billing Profile

To view the image of an invoice from a billing profile, follow this procedure.

To view the image of an invoice from a billing profile

1. Navigate to the Billing Profile portal.
   For information on the billing profile, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click Refresh to retrieve up-to-date data from the billing application.
4. In the Bills list, select the record for the invoice image that you want to view, and click View Invoice.
   If the user ID and password for the Web Center Content (WCC) host are the same as the user ID and password for the Siebel application, then the invoice image appears in a separate dialog box if the administrator sets up the integration between the WCC host and the Siebel application. For more information, see *Setting Up the Invoice Image Feature in Siebel Communications*.
5. If the user ID and password for the WCC host are different from the user ID and password for the Siebel application, then you must complete the following steps to view the invoice image:

a. In the dialog box that appears, enter your login credentials, and click Sign In.
b. Close this dialog box.
c. In the Bills list, click View Invoice again.
The invoice image appears in a separate dialog box.

6. If you want to view another invoice image, then select the record for that invoice image in the Bills list, and click View Invoice again.
For the high-interactivity client, the invoice image appears in a second dialog box. For the Open UI client, the second invoice image replaces the invoice image in the first dialog box.

Viewing Invoice History

To view the invoice history, follow this procedure.

To view the invoice history

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Billing Portal view tab.
The Invoice History list displays the most current records for the invoice. If the information does not appear in the Invoice History list, then perform a query to access the correct records.
4. Drill down on the invoice number of the invoice.
5. In the Line Items list, click the view tab for the information you want to view.

Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)

End users can enter a payment for a customer at the account level, the profile level, or the invoice level, according to the accounting application used at their company.

To record and monitor bill payments, perform the following tasks:

- *Recording Account-Level Payments*
- *Recording Invoice-Level Payments*
- *Recording Profile-Level Payments*
- *Viewing Billing Payment History*

Recording Account-Level Payments

To associate the payment against the account when the company's accounting method applies the payment against the account balance (Balance Forward), perform this task.

This task is a step in *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*.

To record a payment at the account level

1. Navigate to the Accounts screen, then the Accounts List view.

2. Drill down on the name of the account.
3. Click the Billing Portal view tab.
4. In the Account Balance form, click Pay.

   The Payments list appears with the account information for the new record.
5. In the field, select a method for payment.
6. In the Payments list, complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Payment #	Displays a payment number that is automatically generated.
Payment Date	Displays a payment date that is automatically generated.
Payment Amount	Displays the payment amount by using the account and account balance. The Status field must be Open to enter the amount. Otherwise, this field is read-only.
Status	Displays a status value of Open. You can change this value to a value other than Submitted.

7. In the More Info form, complete additional fields, if necessary.

   The available fields depend on the Payment Method selection you make as follows:

   - **EFT.** Deducts payment from the customer's bank account.

Field	Comments
Bank Account #	Type the customer's bank account number.
Account Holder Name	Type the name under which the customer's bank account is registered.
Bank Branch	Type the reference number of the specific branch of the customer's bank.

   - **Credit Card.** Charges payment to the customer's credit card.
   - **Reference.** Captures payment details at a third-party location, such as post offices or banks.

Field	Comments
Location	Type the location where the payment is made.

Field	Comments
Reference #	Type the reference number of the payment.

8. Click Submit.

Recording Invoice-Level Payments

You can associate the payment against one or more invoices when the company's accounting method applies the payment against the bill balance (Open Item).

This task is a step in *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*.

Recording Payments for One Invoice

To record a payment against one invoice, follow this procedure.

To record a payment against one invoice

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, click Pay.

   A new record is created with the payment number, amount, date, and status already populated.
4. Complete Step 5 and the remaining steps of *Recording Account-Level Payments*.

Recording Payments for Multiple Invoices

To record a payment against multiple invoices, follow this procedure.

> **Note:** You can also begin this procedure from the Billing Portal view. For information, see in the table in *End-User Views*.

To record a payment against multiple invoices

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Payments view tab.
4. In the Payments list, add a payment.
5. Drill down on the payment number of the payment.

   The CME Payments view of the Payments screen appears with the Payment Detail form.
6. In the Payments list, drill down on the payment number of the payment again.
7. In the Invoices list, enter the amount that you want to apply to each invoice in the Payment Amount field.
8. In the Payment Detail form, enter the total amount.

Recording Profile-Level Payments

End users can enter payments for a billing profile or for a bill in that billing profile. When they enter a payment for a billing profile, the billing application applies that payment to the outstanding bills for the billing profile according to business logic in the billing application. To enter payments for a billing profile, complete the steps in the following procedure.

This task is a step in *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*.

To enter payments for a billing profile

1. Navigate to the Billing Profile portal.
   For information on accessing billing profiles, see *Accessing Billing Information*.
2. Click the Payments view tab to display a list of payments for the billing profile.
3. Click New to add a new payment.
   The Capture New Payment dialog box displays.
4. Enter an amount in the Payment Amount field, and select the One-Time Payment check box.
5. Select a method of payment in the Payment Method field:
   - If you select Credit Card, enter details in the Credit Card area of the screen.
   - If you select Automatic Debit, enter details in the Bank Account area of the screen.
6. Click Submit to submit the payment to the billing application.
   A payment confirmation number displays. When the billing application processes the payment, the payment is included in the payments list.

When end users enter a payment for a bill, the billing application applies that payment to the bill. To enter payments for a bill, complete the steps in the following procedure.

To enter payments for a bill through a billing profile

1. Navigate to the Billing Profile portal.
   For information on accessing billing profiles, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click the Bill Number field for the bill that you want to pay.
4. Click the Payments view tab to display a list of payments for the bill.
5. Click New to add a new payment.
   The Capture New Payment dialog box displays.
6. Enter an amount in the Payment Amount field, and select the One-Time Payment check box.
7. Select a method of payment in the Payment Method field:
   - If you select Credit Card, enter details in the Credit Card area of the screen.
   - If you select Automatic Debit, enter details in the Bank Account area of the screen.
8. Click Submit to submit the payment to the billing application.
   A payment confirmation number displays. When the billing application processes the payment, the payment is included in the payments list.

Viewing Billing Payment History

You can view a history of bill payments by account.

This task is a step in *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*.

To view billing payment history

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Billing Portal view tab.

   The Payment History list displays the most current records for the account.

Viewing Usage Details in Siebel Communications (End User)

End users can view usage details for an invoice.

To view usage details

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Billing Portal view tab.
4. Scroll down to the Additional Info list.
5. Drill down on the usage detail of a record.

   The Usage Detail list appears with the Usage History list.
6. In the Usage History list, select the data you want to view from the drop-down list.

Viewing Unbilled Charges in Siebel Communications (End User)

End users can view unbilled charges for an account. The total of all unbilled charges appears in the Billing Portal view, but for a breakdown of the charges, end users can follow this procedure.

Note: You can also begin this procedure from the Billing Portal view. For information, see the table in *End-User Views*.

To view unbilled charges

1. Navigate to the Accounts screen, then the Accounts List view.

2. Drill down on the name of the account.
3. Click the Unbilled Charges view tab.

   The Unbilled Charges view displays the charges incurred since the last invoice.

   Some fields are described in the following table.

Field	Comments
Next Invoice Date	Displays the date the next statement is generated.
Recurring Charges	Displays the recurring charges for the current period.
NonRecurrng Charges	Displays the nonrecurring charges for the current period.
Surcharges	Displays the taxes and surcharges for the current period.
Total Charges	Displays the total unbilled charges for the current period. The formula follows: Recurring charges plus nonrecurring charges plus surcharges equal to total charges.

Process of Creating Adjustments in Siebel Communications (End User)

End users must sometimes adjust customer bills for various reasons, such as to apply credit to compensate for an overcharge. For more information about integrating the billing component with an external billing application, see *Defining Integration Workflows for Siebel Communications*.

To create an adjustment, perform the following tasks:

1. Requesting an adjustment by initiating one of the following tasks:
   - *Requesting an Adjustment to an Invoice*
   - *Creating Adjustments for Bills*
2. *Viewing an Adjustment Request Outcome*
3. *Recording a Customer's Decision About Adjustment Outcome Terms*

Requesting an Adjustment to an Invoice

End users can associate the adjustment request with the entire invoice or with a specific line item in the invoice. Because the billing component is integrated with an external billing application, an adjustment request is sent to the external billing application, which processes the request.

Note: End users can also begin this procedure from the Billing Portal view. For information, see the table in *End-User Views*.

This task is a step in *Process of Creating Adjustments in Siebel Communications (End User)*.

Requesting Adjustments for Entire Invoices

To request an adjustment to an entire invoice, follow this procedure.

To request an adjustment to an entire invoice

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the More Info view tab.
5. On the Invoices form, click Adjust.

   The Adjustment Request form appears with some fields populated.
6. Complete any necessary information, such as the reason for the adjustment, and click Submit.

   The request is processed, and the fields are populated with the results.

Requesting Adjustments for Invoice Line Items

To request an adjustment to a line item in an invoice, follow this procedure.

To request an adjustment to an invoice line item

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Line Items view tab.

   The Adjustment Request form appears with the Line Items list. The Status fields default to Open and the Type fields default to Credit. The list displays a history of adjustment requests.
5. Select the line item you want to adjust, and click Adjust.

   A new record is created with some fields populated.
6. Complete any necessary information, such as the reason for the adjustment, and click Submit.

   The request is processed, and the fields are populated with the results.

Creating Adjustments for Bills

End users can create adjustments for bills. Requested adjustments that are approved are reflected on the next bill that the customer receives. You can adjust only a single bill and not multiple bills at a time. You can enter adjustments for an entire bill, for selected item charges on a bill, for selected events associated with an item charge, and for a balance total associated with a selected event.

The level of your selection in the bill detail determines the invoice lines that display when you create adjustments. For example, if you select an entire bill, no invoice lines display. If you select item charges for usage charges and balance forward charges on a bill, an invoice line for usage charges displays, and an invoice line for balance forward charges

displays. If you select two phone call events for a usage item charge, an invoice line displays for each of the two phone calls. If you select a balance total for an event, a single invoice line displays for that balance total.

This task is a step in *Process of Creating Adjustments in Siebel Communications (End User)*.

To create adjustments for an entire bill, complete the steps in the following procedure.

To create adjustments for an entire bill

1. Navigate to the Billing Profile portal.

   For information on billing profiles, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click the Bill Number field for the bill that you want to adjust.

   The Bill Details form for the bill displays and a list of service charges for that bill displays in the Service Charges view tab.
4. Click Adjust in the Bill Details form.

   The Billing Adjustments screen displays showing the form to create an adjustment request with some fields populated and showing the Line Items view tab with no invoice lines.
5. Enter adjustment details in the fields for the form.

   Some fields are described in the following table.

Field	Comments
Status	Status of the adjustment. The value in this field is automatically changed when the billing application processes the adjustment.
Status Description	Read only. Oracle Communications Billing and Revenue Management populates this field with a reason for an adjustment not being posted, if such a case arises.
Request Amount	Amount for which you want to adjust the bill. Defaults to 0.
Approved Amount	Read only. Amount approved for the adjustment to the bill. Defaults to 0. After you click Submit and the billing application processes the adjustment request, the portion of the Request Amount that the billing application approves appears in this field.
Customer Decision	The customer's decision to accept or reject the adjustment.
Adjustment Type	Type of adjustment; for example, Credit, Cash, or Debit.
Reason for Request	Reason for the adjustment request; for example, Billing Error, Partner Code, Special Credit, or Other.

Field	Comments
Approval Date	Read only. Date on which the billing application approves the adjustment. You cannot enter data in this field.
Comments	If necessary, enter additional comments about the adjustment request.
Request Percentage	Percentage by which you want to adjust the bill. If the Request Amount field contains a value, do not enter a percentage in this field.
Approved Percentage	Read only. Portion of the Request Percentage that the billing application approves. After you click Submit and the billing application processes the adjustment request, the percentage of the Request Amount that the billing application approves appears in this field.

6. Click Submit to submit the adjustment to the billing application.

   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

To create adjustments for the item charges on a bill, complete the steps in the following procedure.

To create adjustments for item charges on a bill

1. Navigate to the Billing Profile portal.

   For information on billing profiles, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click the Bill Number field for the bill that you want to adjust.

   The Bill Details form for the bill displays and a list of service charges for that bill displays in the Service Charges view tab.
4. Select the appropriate service charge from the Service Charges list and scroll down to the Item Charges list.
5. Select the item charges and click Adjust in the Item Charges list.

   The Billing Adjustments screen displays showing the form to create an adjustment request with some fields populated and showing the Line Items view tab with invoice lines for the item charges that you select.

   Note: You can delete existing line items, but you cannot add more line items.

6. Enter adjustment details in the fields for invoice line items.

   Some fields are described in the following table.

Field	Comments
Original Amount	The original amount of the item charge. This field is automatically populated with the amount in the Charge field in the Item Charges list. You cannot change this amount.

Field	Comments
Request Amount	Amount for which you want to adjust the bill. Defaults to 0.
Approved Amount	Read only. Amount approved for the adjustment to the bill. Defaults to 0. After you click Submit and the billing application processes the adjustment request, the portion of the Request Amount that the billing application approves appears in this field.
Request Description	If necessary, enter additional comments about the adjustment request.
Status	The status of the adjustment. The value in this field is automatically changed when the billing application processes the adjustment.
Sub Status	Read only. Oracle Communications Billing and Revenue Management populates this field with additional information about the Adjustment being posted or not posted.
Status Description	Read only. Oracle Communications Billing and Revenue Management populates this field with additional information about the Adjustment being posted or not posted.
Adjustment Type	The type of adjustment (for example, Credit, Cash, and Debit).
Reason	The reason for the adjustment request (for example, Billing Error, Partner Code, Special Credit, and Other).

7. Click Refresh Total to see the cumulative effect of the adjustment line items in the Request Amount field of the form for the adjustment request.
8. Click Submit to submit the adjustment to the billing application.
   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

To create adjustments for the events on a bill, complete the steps in the following procedure.

To create adjustments for events on a bill

1. Navigate to the Billing Profile portal.
   For information on billing profiles, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click the Bill Number field for the bill that you want to adjust.
   The Bill Details form for the bill displays and a list of service charges for that bill displays in the Service Charges view tab.
4. Select the appropriate service charge from the Service Charges list and scroll down to the Item Charges list.

5. Click the Net Amount field for the appropriate item charge.

   The Event Details list displays.
6. Select the events, and click Adjust in the Event Details list.

   The Billing Adjustments screen displays showing the form to create an adjustment request with some fields populated and showing the Line Items view tab with invoice lines for the events that you select.

   Note: You can delete existing line items, but you cannot add more line items.
7. Enter adjustment details in the fields for invoice line items.

   Some fields are described in the following table.

Field	Comments
Original Amount	The original amount of the event. This field is automatically populated with the amount in the Charge field in the Event Details list. You cannot change this amount.
Request Amount	Amount for which you want to adjust the bill. This field displays 0 (zero) by default.
Approved Amount	Read only. Amount approved for the adjustment to the bill. This field displays 0 (zero) by default. After you click Submit and the billing application processes the adjustment request, the portion of the Request Amount that the billing application approves appears in this field.
Request Description	If necessary, enter additional comments about the adjustment request.
Status	The status of the adjustment. The value in this field is automatically changed when the billing application processes the adjustment.
Adjustment Type	The type of adjustment (for example, Credit, Cash, and Debit).
Reason	The reason for the adjustment request (for example, Billing Error, Partner Code, Special Credit, and Other).

8. Click Refresh Total to see the cumulative effect of the adjustment line items in the Request Amount field of the form for the adjustment request.
9. Click Submit to submit the adjustment to the billing application.

   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

To create adjustments for the balance totals that are associated with a bill, complete the steps in the following procedure.

To create adjustments for balance totals associated with a bill

1. Navigate to the Billing Profile portal.

   For instructions, see *Accessing Billing Information*.
2. Click the Bills view tab to display a list of bills for the billing profile.
3. Click the Bill Number field for the bill that you want to adjust.

   The Bill Details form for the bill displays and a list of service charges for that bill displays in the Service Charges view tab.
4. Select the appropriate service charge from the Service Charges list and scroll down to the Item Charges list.
5. Click the Net Amount field for the appropriate item charge.

   The Event Details list displays.
6. Select an event for which the Non-Currency check box is selected, click View Detail, and scroll down to the Non-Currency Balance Impacts for Event list.

   The Non-Currency Balance Impacts for Event list is populated with the noncurrency balance totals for the event.

   > **Note:** If the Non-Currency check box is not selected, noncurrency balances are not available for the event, and the View Detail button is disabled.

7. Select a balance and click Adjust in the Non-Currency Balance Impacts for Event list.

   The Billing Adjustments screen displays showing the form to create an adjustment request with some fields populated and showing the Line Items view tab with an invoice line for the noncurrency balance total that you select.

   > **Note:** You can delete existing line items, but you cannot add more line items.

8. Enter adjustment details in the fields for the invoice line item.

   Some fields are described in the following table.

Field	Comments
Request Value	The value by which you want to adjust the balance total. This field is automatically populated with the value in the After AR Actions field in the Non-Currency Balance Impacts for Event list, but you can change this value. If you enter a percentage in the Request Percentage field, you must clear this field.
Approved Value	This field is automatically populated with the amount in the After A/R Actions field in the Non-Currency Balance Impacts for Event list, and you cannot enter data in this field. If you change the Request Value field, this field displays the value in the Request Value field. After you click the Submit button, and the billing application processes the adjustment request, the portion of the request value that the billing application approves displays in this field.
Request Description	If necessary, enter additional comments about the adjustment request.

Field	Comments
Status	The status of the adjustment. The value in this field is automatically changed when the billing application processes the adjustment.
Request Percentage	The percentage by which you want to adjust the balance total. If the Request Value field contains data, do not enter a percentage in this field.
Adjustment Type	The type of adjustment (for example, Credit, Cash, and Debit).
Reason	The reason for the adjustment request (for example, Billing Error, Partner Code, Special Credit, and Other).
Approved Percentage	The portion of the request percentage that the billing application approves. You cannot enter data in this field. The billing application processes the adjustment request after you click the Submit button.

9. Click Submit to submit the adjustment to the billing application.
   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

Creating Adjustments for Unbilled Usage

You can create adjustments to charges for unbilled usage (for example, phone calls that have not yet been added to a bill). For more information about unbilled charges, see *Viewing Unbilled Services for a Billing Profile*. To create adjustments for unbilled usage, complete the steps of the following procedure.

To create an adjustment for unbilled usage

1. Navigate to the Billing Profile portal.
   For instructions, see *Accessing Billing Information*.
2. Click the Unbilled Usage view tab to display a list of service charges that the company has not yet billed for the billing profile.
3. Click Refresh to retrieve up-to-date data from the billing application.
4. To view the item charges for a service charge, select that service charge from the Service Charges list and scroll down to the Item Charges list.
5. To view the events for an item charge, click the Net Amount field for that item charge.
   The Event Details list appears.
6. To find specific events in the Event Details list, click Search, enter search criteria, and click Go.
7. Select the event representing the unbilled usage to be adjusted, and click Adjust.
   - On the Invoice Adjustment view, Siebel Communications creates an invoice to track the adjustment. The invoice contains the Bill Number.
   - In the Billing Profile Adjustments view, Siebel Communications creates a record for the adjustment. This adjustment record likewise contains the Bill Number.

8. Click Submit to submit the adjustment to the billing application.

   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

Creating Adjustments for Unbilled Usage for Child Accounts

To create an adjustment for unbilled usage for a nonpaying (child) account, complete the steps of the following procedure.

To create an adjustment for unbilled usage for a child account

1. Navigate to the Account Summary view.
2. In the Installed Assets list, find the asset (for example, Mobile Service) associated with the child account for which you want to create an adjustment for unbilled usage.
3. In the Installed Assets list, drill down on the Billing Profile.

   Siebel Communications displays the Billing Profile screen, Balance Group view. The integration retrieves and displays the billing profile of the nonpaying account.
4. Click the Unbilled Usage tab and review the service charges.
5. Click the Item charges to review the currency and noncurrency event details.
6. Select the event representing the unbilled usage to be adjusted, and click Adjust.

   Siebel Communications displays the Invoice Adjustment view.

   - An invoice is created to track the adjustment. The invoice contains the Bill Number. (The external Oracle Communications Billing and Revenue Management application tracks unbilled events in the bill with a status of Open.)
   - A list item is created in the Billing Profile view's Adjustments list. This list item likewise includes the Bill Number.
7. Click Submit to submit the adjustment to the billing application.

   The adjustment record becomes read-only, and its Status changes to Submitted. When the response message comes back from the external billing application, it updates the Status to either Posted (indicating that the adjustment succeeded) or Not Posted (indicating that the adjustment failed).

Viewing an Adjustment Request Outcome

Typically, the account adjustments and payment arrangement plans are determined in the back office, either manually or through an back-office application. The back-office application then sends the outcome of the request to Siebel Communications.

End users can view the request outcome and the history of adjustment requests.

This task is a step in *Process of Creating Adjustments in Siebel Communications (End User)*.

Viewing Outcomes of Adjustment Requests

To view the outcome of an adjustment request, follow this procedure.

To view the outcome of an adjustment request

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.

   The Invoices form appears with the view tabs.
4. Click the Adjustment Requests view tab.
5. In the Adjustment Request list, review the Amount Approved field.

   The fields in this list show the response of external billing application to the bill repayment plan request. The Status field is updated automatically.

Viewing History of Adjustment Requests

To view the history of adjustment requests for an account, follow this procedure.

To view the history of adjustment requests

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Adjustment Requests view tab.

   The Adjustment Requests list displays all of the adjustment requests for the account.

Recording a Customer's Decision About Adjustment Outcome Terms

After consulting with the customer, end users can record the customer's decision to accept or reject the outcome terms.

This task is a step in *Process of Creating Adjustments in Siebel Communications (End User)*.

To record the customer's decision about the adjustment outcome terms

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.

   The Invoices form appears with the view tabs.
4. Click the Adjustment Request view tab.
5. In the Adjustment Requests list, select the request record.
6. In the Customer Decision field, select information to indicate the customer's decision to accept or reject the outcome terms.

> **Note:** If your company does not require a customer decision regarding a bill adjustment outcome, then the customer decision fields might be unavailable.

Process of Making Payment Arrangements in Siebel Communications (End User)

End users can request a special arrangement if a customer is unable to pay for services when a bill payment is due. The customer can request a payment plan or a deferral of payment. In response, your company can approve the request, reject the request, or propose its own terms. The response might depend on factors such as corporate policy, customer credit history or credit worthiness, and longevity of the customer's association with your company. For more information about integrating the billing component with an external billing application, see *Defining Integration Workflows for Siebel Communications*.

To make a payment arrangement, perform the following tasks:

1. *Requesting a Payment Arrangement*
2. *Viewing the Outcome of a Payment Arrangement Request*
3. *Recording a Customer's Decision About Payment Arrangement Terms*

Requesting a Payment Arrangement

Because the billing component is integrated with an external billing application, a payment arrangement request is sent to the external billing application, which processes the request and generates a response.

This task is a step in *Process of Making Payment Arrangements in Siebel Communications (End User)*.

To request a payment arrangement

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Payment Arrangements view tab.
5. In the Payment Arrangements list, add a record, and complete the fields as necessary.

   Some fields are described in the following table.

Field	Comments
# of Installments	Type the number of installments. For a single-payment deferral plan, this number is 1.
Installment Amount	Displays the installment amount. This amount is calculated as follows: Amount owed divided by the number of installments.

The external billing application processes the request and populates the Payment Arrangements Outcome form at the end of the screen.

Viewing the Outcome of a Payment Arrangement Request

Siebel Communications receives the outcome of the request, which is generated by the external billing application.

This task is a step in *Process of Making Payment Arrangements in Siebel Communications (End User)*.

Viewing Outcomes of Payment Arrangement Requests

To view the outcome of a payment arrangement request, follow this procedure.

To view the outcome of a payment arrangement request

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.

   The Invoices form appears with the view tabs.
4. Click the Payment Arrangements view tab.
5. Scroll down to the Payment Arrangements Outcome form to review the response of the external billing application to the bill repayment plan request.

Viewing History of Payment Arrangements

To view the history of payment arrangements for an invoice, follow this procedure.

To view the history of payment arrangements

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Payment Arrangements view tab.
5. In the Payment Arrangements list, select Payment Arrangements or Payment Arrangements Details from the drop-down list.
6. If the information does not appear in the Payment Arrangements list, then perform a query to access the correct records.

Recording a Customer's Decision About Payment Arrangement Terms

After consulting with the customer, end users can record the customer's decision to accept or reject the payment plan that their company is offering.

This task is a step in *Process of Making Payment Arrangements in Siebel Communications (End User)*.

To record the customer's decision about the payment outcome terms

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.

3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Payment Arrangements view tab.
5. Scroll down to the Payment Arrangements Outcome form, and select a value in the Customer Decision field to indicate the customer's decision to accept or reject the terms.

Note: If your company does not require a customer decision regarding a bill repayment plan outcome, then the customer decision fields might be unavailable.

Requesting a Duplicate Invoice in Siebel Communications (End User)

Occasionally, a customer might request a copy of an invoice.

To request a duplicate invoice

1. Navigate to the Invoices screen.
2. From the Show drop-down list, select All External Invoices.
3. In the Invoices list, drill down on the invoice number of the invoice.
4. Click the Duplicate Request view tab.
5. In the Duplicate Request list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Street Address	Select the address to which to send the duplicate bill. The City, State, Zip, and Country fields are automatically populated when you select the address.
Comments	Type specific directions or descriptions about the duplication process.

6. To send the invoice to a different mailing address, complete the following steps:
   a. In the Duplicate Request list, select Duplicate Bill Request Detail from the drop-down list.
   b. In the Street Address field, select another address.

Updating a Billing Profile in Siebel Communications (End User)

When billing a customer,Siebel Communications integrates information, such as exemption information or discounts, that is stored in profiles. For more information about profiles, see *Profiles in Siebel Communications*.

To update a billing profile

1. Navigate to the Accounts screen, then the Accounts List view.
2. Drill down on the name of the account.
3. Click the Billing Portal view tab.
4. Scroll down to the Additional Info form.
5. Drill down on the billing profile of a record.
6. In the Billing Profile form, update the fields as necessary.

Additional End-User Tasks for Billing Management

This topic contains information about other tasks related to billing.

Caller Verification

When receiving an inbound call, end users first verify and find the caller. For more information about caller verification, see *Siebel Applications Administration Guide* .

Billing for Services

Some special billing procedures relate to billing for services. For more information about billing for services, see *Siebel Order Management Guide Addendum for Communications* .

11 Work Orders in Siebel Communications

Work Orders in Siebel Communications

This chapter provides procedures for creating and managing work orders in Siebel Communications. It includes the following topics:

- *About Work Orders in Siebel Communications*
- *Scenario for Using Work Orders in Siebel Communications*
- *Creating a Work Order in Siebel Communications (End User)*
- *Adding an Activity to a Work Order in Siebel Communications (End User)*
- *Creating Work Order Line Items in Siebel Communications (End User)*
- *Adding Work Order Terms in Siebel Communications (End User)*
- *Additional End-User Tasks for Work Order Management in Siebel Communications*

About Work Orders in Siebel Communications

The Work Orders module in Siebel Communications helps service providers to manage the components needed to activate a service for a customer. A *work order* is an action item that must be completed to implement an order. When an order is submitted, the back-office order processing application divides it into one or more work orders, by using criteria, such as service provider or due dates. A work order has most of the components found in a standard order, but it deals specifically with those items that are required for the provisioning process.

By creating and tracking work orders separately, you can access the status of a sales order. This status is important because work orders are executed by back-office applications, such as the provisioning system. Tracking the status of an order gives you up-to-date access to the information related to the order and can therefore convey it to a customer at any time, either through inbound contact or through outbound workflow-initiated activities.

The Communications Work Orders module works in conjunction with the Communications Order Processing module. It uses much of the work conducted during the order process and provides screens that allow you to manage work orders.

Scenario for Using Work Orders in Siebel Communications

This topic gives one example of how work orders might be used. You might use work orders differently, depending on your business model.

A customer service representative (CSR) has just completed an order for a customer, requiring three mobile phones, two pagers, an Internet connection, and an addition to their local service (voice mail). The order that the CSR created contains at least seven line items: one for each of the mobile phones, two for pagers, one for the Internet connection,

and one for the local service. The CSR has given a quote for the order to the customer, who has accepted it and asked that the order be placed.

In the Order Line Items view, the CSR submits the order to the provisioning system. Since your company is a reseller of communications services (in this example), the action of submitting the order creates three work orders. A service provider applies to each of the line items. The following list shows the work order allocation:

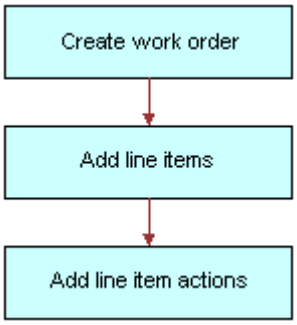
- Three mobile phones—provided by a mobile services company Two pagers—provided by a mobile services company
- An Internet connection—provided by an Internet service provider
- Local service (voice mail)—provided by the local phone service provider

The work orders were created for the service provider for each of the line items associated with the order. In this example, there are three unique providers: a mobile services provider, an Internet service provider, and the local phone service provider. The work order is separated into three separate work orders, which are then submitted to the various providers for activation.

A week later, the customer calls to check on the status of his order because he has not received his equipment. His call is directed to a different CSR, who is able to search through his company account to find any open orders. When the CSR has found the most recent order, he can use the hyperlink to find the specific work orders associated with the order. When he does this, he notices that each of the work orders is complete, except the one for the mobile phones and pagers. When he drills down into that order, he finds some notes and activities indicating that the particular pager ordered by the customer is on back-order. The estimated delivery date is two days from now. The CSR adds an activity to the work order to indicate that the customer wants to be notified by email when the status of the order has changed to complete.

The following image shows the sequence of procedures that an end user might follow to manage work orders. The steps in the procedure are as follows:

- Create work order.
- Add line items.
- Add line item actions.



Creating a Work Order in Siebel Communications (End User)

End users can create work orders.

To create a work order

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Account	Select the master account for the work order. The field for the account number is automatically populated when you select a value in this field.
Last Name	Select the name of the contact for the work order.
Order	Select the sales order associated with the work order.
Provider	Select the vendor for the work order.
Address	Displays the address of the account.

Adding an Activity to a Work Order in Siebel Communications (End User)

End users can create an activity and associate it with a premises for the following reasons:

- Remind themselves of procedures related to a premises that they must perform.
- Communicate procedures related to a work order that other members of the organization must perform.

Activity plans include a list of activities to be completed to resolve a problem. If an appropriate activity template exists, then end users can select the template to populate their activities list with a defined set of activities. Then end users can customize the list, if necessary.

Associating Activity Plans With Work Orders

To associate an activity plan with a work order, follow this procedure.

To associate an activity plan with a work order

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Drill down on the order number of the work order.
3. Click the Activity Plans view tab.

4. In the Activity Plans list, add a record.
5. In the Template field, select an Activity Template.

Creating Activity Plans for Work Orders

To create an activity plan for a work order, follow this procedure.

To create an activity for a work order

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Drill down on the order number of the work order.
3. Click the Activities view tab.
4. In the Activities list, add a record, and complete the necessary fields.

Creating Work Order Line Items in Siebel Communications (End User)

End users can create line items and line item actions to be allocated for a work order.

Creating Line Items for Work Orders

To create line items to be allocated for a work order, follow this procedure.

To create line items to be allocated for an order

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Drill down on the order number of the work order.
3. Click the Line Items view tab.
4. Scroll down and click the Line Detail subview tab.
5. In the Line Detail form, add a record, and complete the necessary fields. To access more fields, click the show more button in the form.
   Some fields are described in the following table.

Field	Comments
Product	Select the product. When you select a product, you select a line item from the associated service order. The Action, Due, UoM, Start Price, and Status fields are automatically populated with the information from the Order Line Item view.
Ship to Last Name	Select the name of an existing contact or add a new contact. When you select a contact, the Ship to First Name, Address, City, State, ZIP, and Country fields in the Order Line Item view are automatically populated.

Adding Line Item Actions to Work Orders

To add a line item action to a work order, follow this procedure.

To add a line item action

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Drill down on the order number of the work order.
3. Click the Line Item Actions view tab.
4. In the Line Item Actions list, add a record, and complete the necessary fields.

Adding Work Order Terms in Siebel Communications (End User)

End users can add a work order term.

To add a work order term

1. Navigate to the Work Orders screen, then the Work Order List view.
2. Drill down on the order number of the work order.
3. Click the Terms view tab.
4. In the Terms form, complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Payment Terms	Select the terms for how the customer pays.
Return To	Select the return address for order items.
Status	Select the status of the order.
Freight Terms	Select the terms for how to ship the order.

Additional End-User Tasks for Work Order Management in Siebel Communications

This topic contains information about another task related to work orders.

Work Orders and Attachments

At any time, end users can store additional information relating to a work order in the database by associating an electronic file with the work order record. For information about associating an attachment with a record, see *Siebel Fundamentals* .

12 Service Requests and Trouble Tickets in Siebel Communications

Service Requests and Trouble Tickets in Siebel Communications

This chapter describes the procedures for initiating and managing service requests and trouble tickets in Siebel Communications. It includes the following topics:

- *About Service Requests and Trouble Tickets in Siebel Communications*
- *Scenario for Using Service Requests and Trouble Tickets in Siebel Communications*
- *Setting Up Service Requests and Trouble Tickets in Siebel Communications*
- *Creating a Trouble Ticket Record in Siebel Communications (End User)*
- *Assigning a Trouble Ticket in Siebel Communications (End User)*
- *Associating Parent and Child Trouble Tickets in Siebel Communications (End User)*
- *Viewing Fallout Orders for Trouble Tickets*
- *About Trouble Ticket Solutions*
- *Resolving Trouble Tickets in Siebel Communications (End User)*
- *Using the Customer Satisfaction Survey in Siebel Communications (End User)*
- *Analyzing Trouble Tickets Data in Siebel Communications (End User)*
- *Additional End-User Tasks for Trouble Ticket Management in Siebel Communications*

About Service Requests and Trouble Tickets in Siebel Communications

Siebel Communications service requests and trouble tickets are primarily used by customer service representatives (CSRs), their managers, and network operations center (NOC) agents.

Service requests and *trouble tickets* are database records that are used to manage problems with equipment or general requests for service. This chapter is mostly about trouble tickets, but it also explains the differences between trouble tickets and service requests and tells you where you can find more information about service requests. The following information is included in this chapter:

- This chapter guides you in setting up features that help to automate trouble ticket management.
- This chapter describes procedures typically used by end users to create, monitor, and close trouble tickets.
- This chapter describes procedures that you can use for overall management of trouble tickets.

Service requests and trouble tickets perform similar functions. The main differences follow:

- Trouble tickets functionality supports parent-child relationships.

- Trouble tickets are typically used to record and track problems with the functioning of services and networks, while service requests are typically used to record and track general customer problems and requests. Examples of general problems and requests are billing problems, requests for new equipment, and requests for billing statements.

Service requests and trouble tickets are managed through the Service Requests and Trouble Tickets screens.

Initiation of Service Requests and Trouble Tickets

Service requests and trouble tickets can be initiated in the following ways:

- A customer calls the call center to report a problem with the phone line.
- A network communications management application that is integrated with Siebel Communications automatically creates a trouble ticket record in the Siebel Communications database.
- Agents can reassign service requests and trouble tickets to other groups or individuals for resolution. Alternatively, agents can break a service request or trouble ticket down into different activities, which can be assigned to different owners. In this case, the agent can monitor progress towards completion of the activities and close the service request or trouble ticket.

Creation of Service Requests and Trouble Tickets

Service requests and trouble tickets can be created within Siebel Communications or moved into Siebel Communications by the following methods:

- Customers using Oracle's Siebel Self Service.
- Customers and partners using an Automated Call Distributor (ACD).
- Call center agents responding to phone calls or email from customers.
- NOC agents responding to network problems.
- Automated network communications management applications that are integrated with Siebel Communications.

Trouble Ticket Referral

Trouble tickets can be referred from Siebel Communications to trading partner software through integration with an electronic bonding gateway, using Siebel Enterprise Application Integration (Siebel EAI).

Additional Information About Service Requests

The remainder of this chapter describes trouble ticket management. For more information about service requests, see *Siebel Field Service Guide* and *Siebel Applications Administration Guide* .

Scenario for Using Service Requests and Trouble Tickets in Siebel Communications

This topic gives one example of how service requests and trouble tickets might be used. You might use service requests and trouble tickets differently, depending on your business model.

A customer service representative (CSR) receives a call from the owner of a software company. He is phoning from his mobile phone and explains that he has no dial tone on his office phone. The CSR verifies the customer's service configuration and identifies the specific phone line to which he is referring.

The CSR creates a trouble ticket and attempts to use the problem resolution capabilities in Siebel Communications to resolve the customer's problem. The CSR is unable to solve the problem and passes the trouble ticket to the Network Services Group. The CSR ends the call and creates a follow-up activity on the trouble ticket.

Two minutes later, the CSR receives a broadcast message indicating that there is a circuit break that is affecting customers in a particular exchange. The CSR looks up the network-reported problem for the circuit outage and finds the specific trouble ticket. The trouble ticket details indicate that a construction crew sliced through a cable that carries network traffic for the exchange. The estimated repair time is five hours.

The CSR performs a search in Siebel Communications to find all open trouble tickets that have a service item equivalent to the affected exchange. The search produces a list of 15 trouble tickets, including the network-reported trouble ticket.

The CSR associates each of the 14 customer-reported trouble tickets with the one network-reported trouble ticket for the following reasons:

- The 14 customer-reported problems are related to one network outage.
- Your company's Siebel administrator has configured the Siebel applications so that all the customer-reported troubles are resolved when the network-reported trouble is resolved.

The CSR assigns the network trouble ticket for the cable break to a technician in the Repair and Maintenance department and receives a message from the on-site maintenance crew that the cable has been repaired and tested and is fully operational. The technician creates a series of notes in the network trouble ticket, indicating the resolution, and closes the trouble ticket.

When the technician closes the parent trouble ticket, the child trouble tickets are not automatically closed since it may be necessary to verify that each customer's problem has been fixed. Because your administrator has configured it to do so,Siebel Communications determines that the trouble ticket for the customer previously described can be closed. It then sends a text message to the customer's mobile phone notifying him of the resolution.

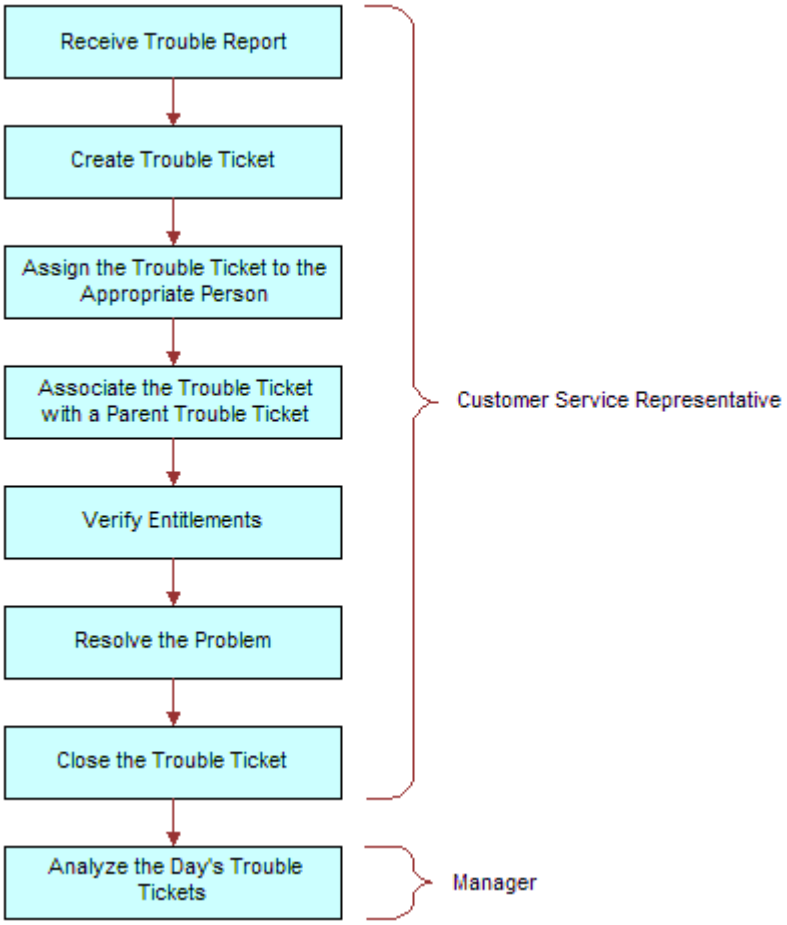
At the end of the day, the manager examines all of the trouble tickets generated that day.

The following image shows the sequence of procedures that end users might follow to manage trouble tickets. The sequence of events are as follows:

1. Customer Service Representative:
    - Receives trouble report.
    - Creates trouble ticket.
    - Assigns the trouble ticket to the appropriate person.
    - Associates the trouble ticket with a parent trouble ticket.

- Verifies entitlements.
- Resolves the problem.
- Closes the trouble ticket.

2. Manager:
   - Analyzes the day's trouble tickets.



Setting Up Service Requests and Trouble Tickets in Siebel Communications

Administrators can make the CSRs' job easier by creating scripts and automating the assignment of trouble tickets as follows:

- You can use Oracle's Siebel SmartScript to provide scripts that guide CSRs as they collect information about trouble tickets. For more information about creating scripts, see *Siebel SmartScript Administration Guide* .
- CSRs or other qualified personnel can manually assign ownership of a trouble ticket to themselves, to another employee, or to a group. With the appropriate setup, Oracle's Siebel Assignment Manager can be used to give the CSR the option of automating the assignment.

For more information about setting up Siebel Assignment Manager (including rules, criteria, workload, employees, positions, and territories), see *Siebel Assignment Manager Administration Guide* .

Creating a Trouble Ticket Record in Siebel Communications (End User)

End users can create a trouble ticket record.

To create a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Ref #	Type the reference number An external application can identify the trouble ticket by using this number.
Last Name	Select the last name of the person reporting the problem.
Owner	Select the user ID of the person or group responsible for resolving the trouble ticket (for example, an end user, another service representative, or a service group).

Assigning a Trouble Ticket in Siebel Communications (End User)

If end users are unable to resolve trouble tickets themselves, then they can assign them to another qualified CSR or to a group. In general, trouble tickets can be assigned in these ways:

- **Batch assignment.** Siebel Assignment Manager can assign many trouble tickets at a scheduled time. For more information, see *Siebel Assignment Manager Administration Guide* .
- **Dynamic assignment.** Siebel Assignment Manager can automatically assign trouble tickets at preset intervals. For more information, see *Siebel Assignment Manager Administration Guide* .
- **Interactive assignment.** Siebel Assignment Manager is invoked manually from the menu button in the More Info view, as described in the next procedure.
- **Manual assignment.** Users select the owner in the Trouble Tickets screen, as described in the next procedure.

To assign a trouble ticket manually to a person or group

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. In the More Info form, click the show more button, and then perform one of the following steps:
   - To assign a trouble ticket using Oracle's Siebel Assignment Manager, click the menu button, select Assign, and then select a person.
   - To manually assign a trouble ticket to a person, select a person in the Owner field.
   - To manually assign a trouble ticket to a group, select a group in the Group field.

Associating Parent and Child Trouble Tickets in Siebel Communications (End User)

The general procedure for setting up a parent-child relationship is to create the child trouble ticket and then associate it with an existing trouble ticket for the parent.

End users can group many child trouble tickets under one parent trouble ticket. Grouping several trouble tickets under one parent can be useful for managing a single network problem that results in calls from many customers.

Associating Child Trouble Tickets With Parent Trouble Tickets

To associate a child trouble ticket with existing parent trouble tickets, follow this procedure.

Note: A list of children of a selected trouble ticket appears in the Related Trouble Tickets view.

To associate a child trouble ticket with existing parent trouble tickets

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the child trouble ticket.
3. Click the Parent Trouble Tickets view tab.
   The Trouble Ticket Details form appears with the Parent Trouble Tickets list.
4. In the Parent Trouble Tickets list, create a new record.
5. In the Add Trouble Tickets dialog box, select one or more parent trouble tickets.

Verifying Entitlements for Trouble Tickets

To verify an entitlement associated with a trouble ticket, follow this procedure.

To verify the entitlement associated with a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. Click the More Info view tab.

4. In the More Info form, click the show more button to access more fields.
5. In the Entitlement Name field, select an entitlement.

   Note: For information about determining how this dialog box is populated, see *Siebel Field Service Guide* .

6. In the More Info form, click Verify.

   The Due Date field is automatically populated with the appropriate time period. For instance, if the customer is entitled to have a problem fixed within two hours, then the Due Date field reflects this time period.

Viewing Fallout Orders for Trouble Tickets

A *fallout order* is an order that has failed in the fulfillment system, and for which processing has stopped. To help resolve order failures and resume order processing, Siebel Communications uses Oracle Application Integration Architecture to receive order failures as trouble tickets.

When an order is submitted from a Siebel CRM application for fulfillment, the order may fail either in Oracle Application Integration Architecture, the fulfillment system, or the provisioning system. Information about the order failure is sent by way of the integration to Siebel Communications, and a trouble ticket is created with order failure information.Siebel Communications users work the order failure-generated trouble ticket normally to correct the issue. Correcting the issue might involve resubmitting the order in the fulfillment system, or revising and resubmitting the order from Siebel CRM. After the issue is corrected, the trouble ticket can be closed automatically from the fulfillment system or manually in Siebel Communications.

Note: If multiple order failures are associated with the same batch or bulk order, the fulfillment system might generate a single consolidated trouble ticket for all the order failures from that batch or bulk order. For more information about processing order failures, see the chapter on employee asset-based ordering in *Siebel Order Management Guide Addendum for Communications* .

To view fallout orders associated with a trouble ticket, follow this procedure.

To view information about a fallout order for a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. From the Saved Queries drop-down list, select Order Failure Trouble Tickets.

   The view displays a list of trouble tickets created for order failures.
3. Identify the trouble ticket associated with the fallout order that you want to view, and click the link in its Ticket Id field.
4. Click the Order Failure Information view tab.
5. In the Order Failure Information list, view the fallout order information associated with the current trouble ticket.

   Some fields are described in the following table.

Field	Comments
Order Id	Order ID code generated by the fulfillment system. Click the link to display the order that generated this trouble ticket.

Field	Comments
Order Line Item Id	Order line item ID code generated by the fulfillment system.
Common Order Id	ID code mapped by the Oracle Application Integration Architecture integration to the application-generated Order Id.
Common Order Item Id	ID code mapped by the Oracle Application Integration Architecture integration to the application-generated Order Line Item Id.
Application Error Code	Error code from the external fulfillment system (if any).
Global Error Code	Maps the application error code to a standardized error code that can be used to map to recovery procedures.
Failure Code	System failure code supplied by Oracle Application Integration Architecture.
Fulfillment Transaction Id	Transaction ID generated by the external fulfillment system for the order component. **Note:** Some fulfillment systems do not generate a transaction ID for an order.
System of Failure	Application in which the order failed. This field maps to the common Oracle Application Integration Architecture identifier for the application in which the order failure occurred.

About Trouble Ticket Solutions

Customer service organizations estimate that approximately 85 percent of assigned trouble tickets are related to problems that have been previously encountered. Siebel Communications provides access to descriptions of how previous trouble tickets were resolved. When there is no existing solution to a trouble ticket, a member of the organization can research the problem and create a new description in the form of a solution record.

Solutions Defined

In Siebel Communications, the term *solution* specifically means a record in the Siebel Communications database that includes a description of how a previous trouble ticket was resolved or how an anticipated future trouble ticket can be resolved. The word solution is also used in general terms to mean an answer to a problem.

Further Information

End users can review and create solutions for trouble tickets using the same methods used to review and create solutions for service requests. For more information about working with solutions, see *Siebel Field Service Guide* .

Resolving Trouble Tickets in Siebel Communications (End User)

This topic describes the ways of resolving trouble tickets.

Adding an Activity to a Trouble Ticket

Resolving a trouble ticket might require several procedures, performed by multiple people or groups. End users can create an activity for each step and assign the activity to themselves, another qualified person, or a group.

To add an activity to a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. Click the Activities view tab.
4. In the Activities list, add a record, and complete the necessary fields.

Associating Activity Plans With Trouble Tickets

Activity plans include a list of activities to be completed to resolve a problem. If an appropriate activity template exists, then end users can select the template to populate their activities list with a defined set of activities. Then end users can customize the list, if necessary. For more information about working with activities and activity plans, see *Siebel Applications Administration Guide* .

To associate an activity plan with a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. Click the Activity Plans view tab.
4. In the Activity Plans list, add a record.
5. In the Template field, select an Activity Template.

Closing a Trouble Ticket

When a trouble ticket is resolved, end users can change its status to Closed in any Trouble Ticket list or form. Changes cannot be made to trouble tickets that are closed. To continue working on a closed trouble ticket, first change its status to Open or Pending.

To close a trouble ticket

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. Click the More Info view tab.
4. In the More Info form, select a value of Closed in the Status field.

Note: When you save or click outside the record, the Sub-Status field changes to Resolved and the Date Closed field reflects the current time and date.

Using the Customer Satisfaction Survey in Siebel Communications (End User)

Customer satisfaction surveys allow end users to conduct a survey with the person who initiated a trouble ticket. If they have Chart Works Server (a third-party application) installed, then a chart displays a measurement of the customer's satisfaction as they record the customer's responses. On a subsequent occasion, they can conduct another survey without overwriting existing survey records.

As part of closing a trouble ticket, end users can conduct a customer survey in person, or they can use the Correspondence screen to send a letter and survey to the originator of a trouble ticket. When they mail a survey, an activity is automatically generated for the mailing. For information about using the Correspondence screen to send out customer satisfaction surveys, see *Siebel Applications Administration Guide* .

To conduct a customer survey

1. Navigate to the Trouble Tickets screen, then the Trouble Ticket List view.
2. Drill down on the ticket ID of the trouble ticket.
3. Click the Customer Satisfaction Survey view tab.
4. Scroll down to the Survey Details form, and add a record.
5. Ask each of the questions on the Survey form and record the customer's answer for each field.

Analyzing Trouble Tickets Data in Siebel Communications (End User)

You can use charts to perform various types of analyses on your group's trouble tickets.

To analyze trouble tickets data using charts

1. Navigate to the Trouble Tickets screen, then the Chart view.
2. In the Trouble Ticket list, select the trouble ticket.
3. In the Charts form, select appropriate chart settings.

Additional End-User Tasks for Trouble Ticket Management in Siebel Communications

This topic contains information about other tasks related to trouble tickets.

Customer Verification

When a customer telephones a call or service center, end users must verify whether the person is an existing or new customer. End users navigate to the Accounts or Contacts screen and perform a query of information about the customer, such as the last name, social security number, and so on. If information about the customer is available, then end users can review the requests that have already been entered for the customer. If no information about the customer is available, then end users can enter the customer information. For more information about accounts and contacts, see *Accounts in Siebel Communications* and *Contacts in Siebel Communications*.

Entitlement Verification

When creating a trouble ticket, verify the type of service agreement and entitlements connected with it. For more information about service agreements and entitlements see *Agreements and Entitlements in Siebel Communications*

Communication with Field Service Agents

End users can contact a field service agent. Siebel Communications allows you to send messages about trouble tickets in several ways, including sending a text message to a pager. For more information, see *Siebel CTI Administration Guide* .

Trouble Tickets and Attachments

At any time, end users can store additional information relating to a trouble ticket in the database by associating an electronic file with the trouble ticket record. For information about associating an attachment with a record, see *Siebel Fundamentals* .

13 Credit Management in Siebel Communications

Credit Management in Siebel Communications

This chapter describes the procedures for managing and closing credit alerts. It also describes how to create account adjustments and set up payment plans. It includes the following topics:

- *About Credit Management in Siebel Communications*
- *Scenario for Using Credit Management in Siebel Communications*
- *Reviewing and Adding a Credit Alert in Siebel Communications (End User)*
- *Adding an Activity to a Credit Alert in Siebel Communications (End User)*
- *Contacting the Customer About a Credit Alert (End User)*
- *Entering Payments for Credit Alerts in Siebel Communications (End User)*
- *Process of Creating Account Adjustments or Payment Plans in Siebel Communications (End User)*
- *Process of Managing Collections in Siebel Communications (End User)*
- *Closing a Credit Alert Manually in Siebel Communications (End User)*
- *Additional End-User Tasks for Credit Management in Siebel Communications*

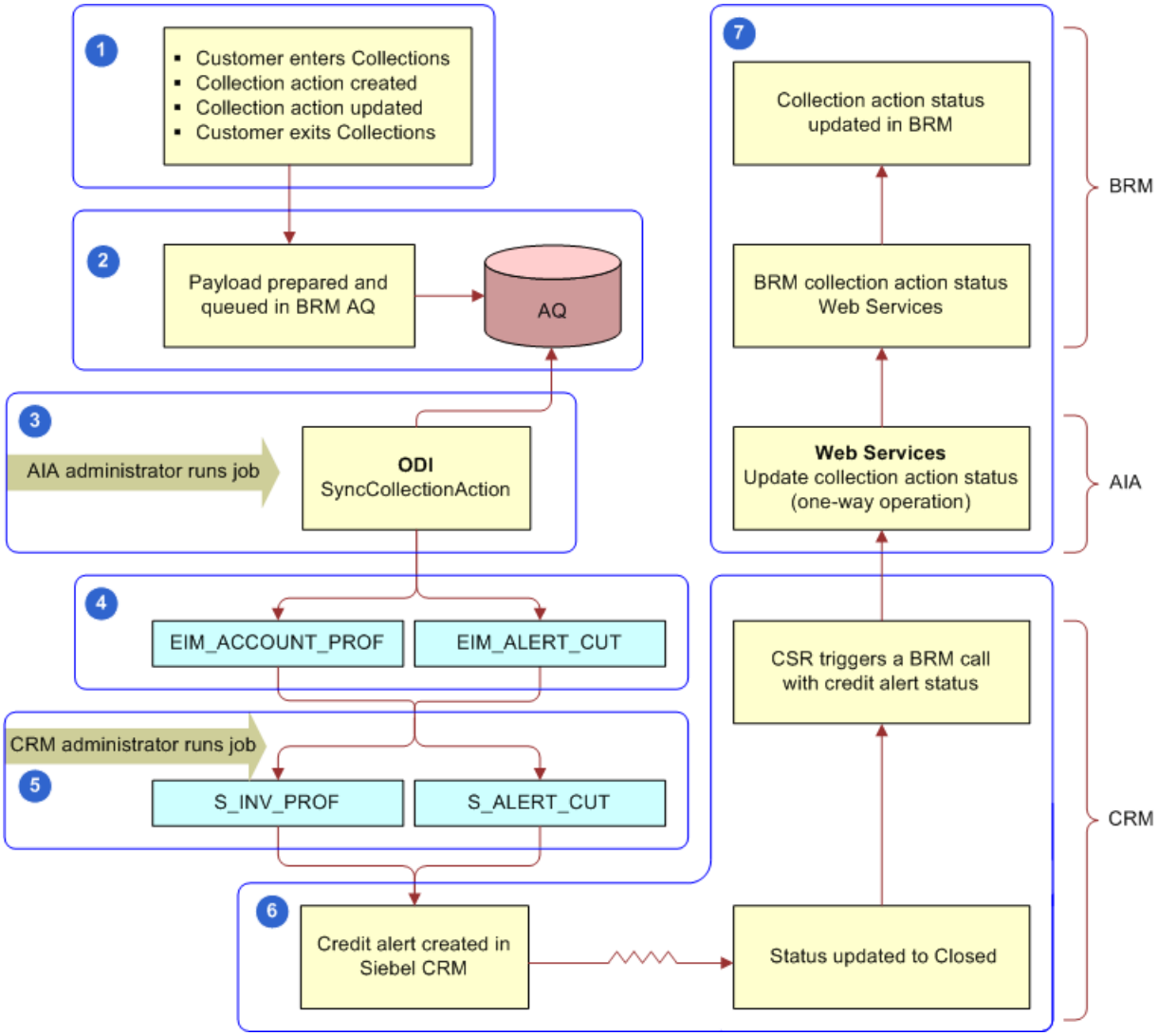
About Credit Management in Siebel Communications

Credit management functionality frequently resides in third-party back-office credit applications. Siebel Enterprise Application Integration (Siebel EAI), which is part of Siebel Communications, provides you with the ability to integrate with these applications and to use their information and functionality.

If customers are late in paying their bills or have not paid their bills in full, then their accounts are flagged by the third-party credit application. The rules for detecting late payment or nonpayment are defined in the credit application.Siebel Communications can interpret late payment or nonpayment messages that the credit application generates.

As a basis for credit management,Siebel Communications provides information in the form of credit alerts. A *credit alert* is a Siebel Communications credit record that can be generated by messages from a back-office credit management application when a customer breaches a credit threshold. It can also be generated manually by a customer request or by the initiative of a customer service representative (CSR). Credit alerts can be resolved through a variety of means, such as customer payment of the outstanding amount, adjustments to a customer account to correct an erroneous billing, and an agreement with a customer for a payment arrangement plan.

When Siebel Communications is linked with the external Oracle Communications Billing and Revenue Management application through Oracle Application Integration Architecture, credit management works as shown in the following.



The diagram shows the following process:

1. The external Oracle Communications Billing and Revenue Management application identifies that a customer is in Collections.
2. In Oracle Communications Billing and Revenue Management, a daily batch creates a payload, and and puts the payload in a queue in the Oracle Communications Billing and Revenue Management Advanced Queuing facility (AQ).
3. In Oracle Application Integration Architecture, an administrator processes the payload through Oracle® Data Integrator by running the SyncCollectionAction job.
4. The SyncCollectionAction job reads the AQ and populates the EIM_ACCNT_PROF and EIM_ALERT_CUT tables, which are Oracle's Siebel Enterprise Integration Manager (EIM) tables for loading data into Siebel CRM.
5. A Siebel administrator runs an EIM job to load the credit alerts into the S_INV_PROF and S_ALERT_CUT tables, which are Siebel base tables that receive credit alert data from the EIM tables and display that data in Siebel CRM.
6. A Customer Service Representative (CSR) using Oracle's Siebel Call Center works on the credit alert by calling the customer and making payment arrangements. When the credit alert status is changed to Closed, the CSR synchronizes the status to Oracle Communications Billing and Revenue Management.
7. Oracle Application Integration Architecture middleware updates the collection action status in Oracle Communications Billing and Revenue Management.

Siebel Communications Credit Management provides the following capabilities:

- **Credit Alerts.** Generates credit alerts when external credit management applications send information about changes in the credit situation of a customer. Provides the ability to send updated credit alert information back to the external credit management applications.
- **Activities.** Generates activities associated with a credit alert. Also allows you to add activities for a credit alert.
- **Payments.** Allows you to send customer payments to the credit management application in response to a credit alert.
- **Account Adjustments.** Allows you to send requests to the credit management application for adjustments to a customer account when a credit alert is in error. Displays the responses of the credit management application to these requests.
- **Payment Arrangements.** Allows you to send requests to the credit management application for payment arrangement plans in response to a credit alert. Displays the responses of the credit management application to these requests.
- **Attachments.** Allows you to attach external documents to a credit alert.

In addition,Siebel Communications provides the following credit management requirements in other modules:

- **Credit Rating.** Displays the customer's credit rating details, including credit score, source, and date. For more information, see *About Financial Profiles in Siebel Communications*.
- **Billing Information.** Displays customer billing information you might need to resolve a credit alert.

CSRs use Credit Management functionality to manage and monitor customer credit issues. They are responsible for reviewing with the customer all account information and credit issues, as well as answering billing inquiries, suggesting payment arrangement plans, and making account adjustments.

Customer service supervisors use Credit Management functionality to determine whether a CSR is allowed to request credit adjustments on a customer's account, set up payment arrangement plans, and maintain billing profiles.

Scenario for Using Credit Management in Siebel Communications

This topic gives one example of how credit management might be used. You might use credit management differently, depending on your business model.

A CSR is responsible for handling credit queries for all of your small and medium-sized customers. A business customer has a contract for mobile subscriptions for its employees. The owner usually pays the bill on time. However, the latest bill for the mobile services is overdue by 18 days.

This nonpayment is automatically detected by the company's accounts receivable application and is forwarded to the credit management application, which then forwards a nonpayment message to Siebel Communications. The message causes Siebel Communications to create a credit alert.

Siebel Communications then generates an activity to contact the owner and sets the account status appropriately. The credit alert appears in the customer service supervisor's queue by default, and the supervisor assigns the credit alert to the CSR.

The CSR examines the credit alert and reviews the billing information needed to handle any customer questions. She also checks for all credit alerts raised against the customer's account in the last 12 months to see whether there is a

history of delinquency. This credit alert is the first credit alert against the customer's account. The CSR then checks the customer's credit rating, which is acceptable.

The CSR looks up contact information for the customer in Siebel Communications and telephones the owner, who is listed as the primary contact for the customer account. The owner apologizes for the delay in payment of the bill and explains that the company has experienced a temporary cash flow problem. The owner asks what options are available. The CSR informs the owner that he can either delay the payment of the bill or request a payment arrangement plan. The owner asks to repay the outstanding bill in three installments.

The CSR enters the required information into Siebel Communications, sets the credit alert's Status to Pending, and records the details of the conversation in the Comments field.

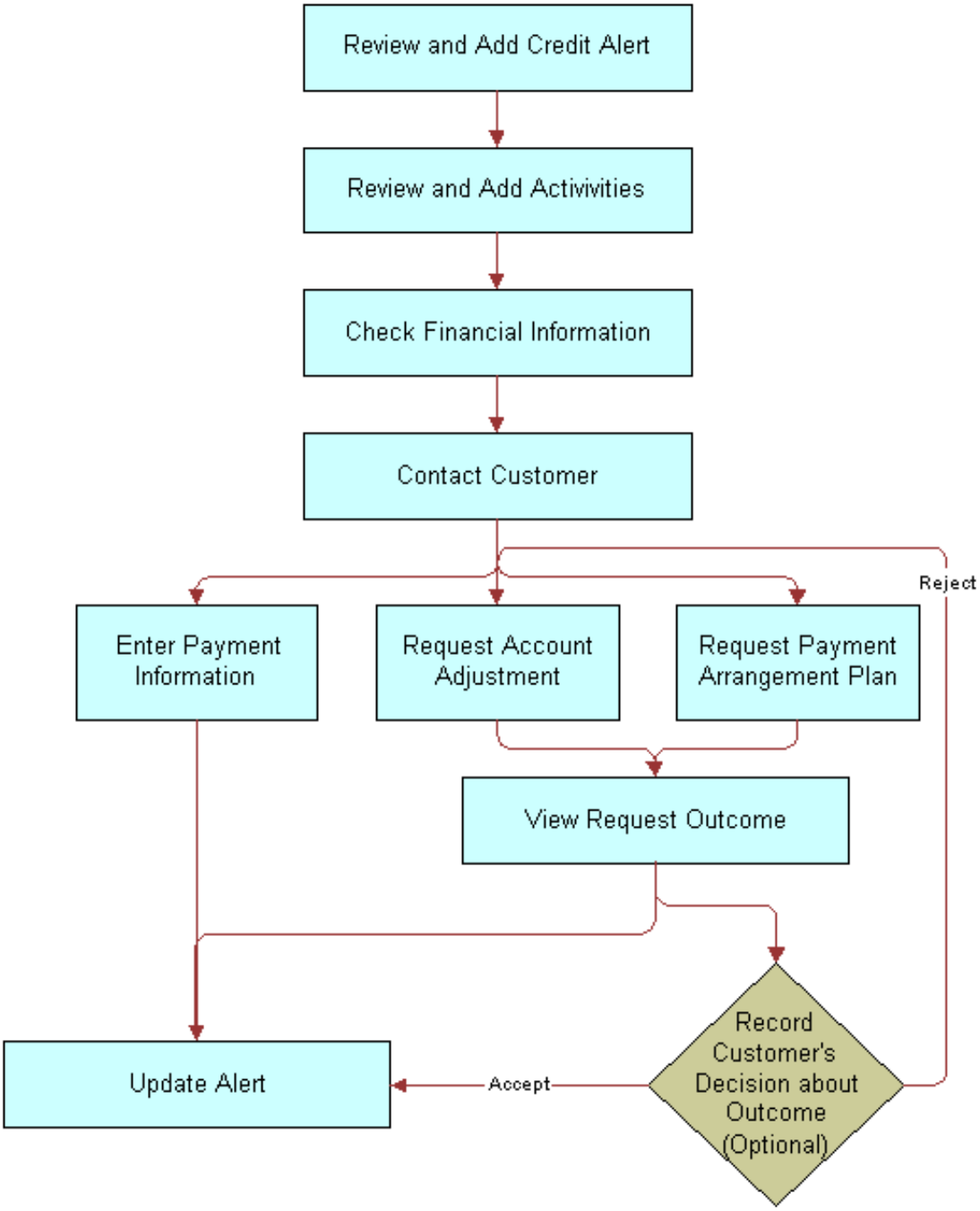
Siebel Communications transmits this information to the credit management application. The credit management application processes the request overnight and responds with an update to the credit alert. The next day, the CSR checks for all open and pending credit alerts assigned to them. The CSR notices that the customer's payment arrangement request has been approved.

The CSR contacts the owner and informs him of the outcome. The CSR then writes a letter confirming the details of the payment arrangement plan, and attaches the letter to the credit alert. Then the CSR updates the Action Type of the credit alert to Payment Arrangement Agreed.

The following image shows the sequence of steps a CSR might use to process a customer credit alert. The steps are as follows:

1. Review and add credit alert.
2. Review and add activities.
3. Check financial information.
4. Contact customer, and if successful:
    - Enter payment information.
    - Request account adjustment.
    - Request payment arrangement plan.
    - View request outcome.
    - Record customer's decision about outcome (optional).

    If unable to contact customer, proceed to the next step.
5. Update alert


Review and Add Credit Alert
Review and Add Activivities
Check Financial Information
Contact Customer
Reject
Enter Payment Information
Request Account Adjustment
Request Payment Arrangement Plan
View Request Outcome
Record Customer's Decision about Outcome (Optional)
Accept
Update Alert

Reviewing and Adding a Credit Alert in Siebel Communications (End User)

The All Credit Alerts view displays all credit alerts. The My Credit Alerts view displays only the credit alerts that are assigned specifically to an end user. These views are identical except for the ownership. The policies for assignment of credit alerts are determined by their company.

End users can use the All Credit Alerts view or the My Credit Alerts view to see external credit alerts, which originate from your company's external credit management application. They can limit the list by selecting a predefined query.Siebel Communications includes the queries All, Closed, Open and Unassigned Alerts.

End users can also use these views to create internal credit alerts for preemptive measures. These alerts can record situations such as the likelihood of a delayed customer payment. If they have permission to do so, then end users can create a credit alert and a corresponding payment arrangement plan record.

When contacted regarding a credit problem, a customer might want you to query the billing account. For example, the customer might believe that the bill is incorrect. Therefore, end users might want to refer to the customer billing data to deal with the customer contact. For more information, see *Billing in Siebel Communications*.

Credit alerts can be created manually in Siebel Communications, or imported as a batch from a third-party credit management application, such as Oracle Communications Billing and Revenue Management by way of an EIM job. These tasks are described in the procedures that follow.

To create an internal credit alert manually

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Add a record, and complete the necessary fields in the record and the More Info form. To access more fields, click the show more button in the form.

   Some fields are described in the following table.

Field	Comments
Created On	Displays the date and time when you create the credit alert.
Priority	Select the priority of the action to perform in response to the credit alert.
Status	Select the status of the credit alert.
Account	Select the account associated with the credit alert.
Amount Owed	Type the amount the customer owes.

Field	Comments
Action Type	Select the type of action to perform in relation to a credit alert. This field might generate or require one or more activities.
Owner	Select the name of the person to whom the credit alert is assigned.
Invoice #	Select the invoice number associated with the credit alert.
Alert #	Displays a unique identifier for the credit alert, which might be generated within Siebel Communications.
Account #	Displays the account number associated with the credit alert.
Agreement	Select the agreement associated with the credit alert.
Source	Displays a value that indicates when the alert was generated externally by a credit management application or internally by a CSR.

To import credit alerts from an external application

- Run an EIM job with the parameter values as shown in the table that follows.

Parameter	Value
Configuration File	ProcessAlertsAndBillingProf.ifb
Error Flags	1
SQL Trace Flags	8
Trace Flags	1

On successful completion of this job, credit alerts are created in Siebel Communications.

- For each credit alert with a substatus of Entered Collections, Siebel Communications changes the billing profile status of the associated account to the color yellow.
- After the account exits from Collections, a new credit alert is created by the external application with a substatus of Exited Collections. When Siebel Communications receives this credit alert, the billing profile status of the associated account changes to the color green.

For more information about running EIM to import data from external applications, see the chapter on importing data in *Siebel Enterprise Integration Manager Administration Guide* .

> **Note:** The Sub Status field of the credit alert is read-only in Siebel CRM and can be populated only by the external application. Similarly, the status color of the billing profile can be changed only by the external application.

Adding an Activity to a Credit Alert in Siebel Communications (End User)

End users can associate activities with a credit alert. The Credit Alert Activities view displays all activities associated with a selected credit alert.

To add an activity to a credit alert

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Activities view tab.
4. In the Activities list, add a record, and complete the necessary fields.

Contacting the Customer About a Credit Alert (End User)

Contact the customer to discuss the reason for the credit alert and the available payment options. Determine whether it is necessary to adjust the customer's account, or help the customer to decide whether they want to send payment immediately or request a payment arrangement plan.

Entering Payments for Credit Alerts in Siebel Communications (End User)

Siebel Communications allows end users to submit a record of payment received from a customer in response to a credit alert. One possible resolution for a credit alert involves the customer's immediate payment of the amount outstanding. End users can enter multiple instances of payment information for a single credit alert. For more information about entering payment information, see *Process of Entering Payment Against an Outstanding Balance in Siebel Communications (End User)*.

To enter a payment for a credit alert

1. Navigate to the Credit Management screen, then the Credit Alert List view.

2. Locate the credit alert for which you want to record a payment.
3. Drill down on the billing profile of the credit alert.
4. On the Billing Profile screen, click the Payments view tab.
5. In the Payments list, add a new record.
6. In the Capture New Payment dialog box, complete the fields as needed.
7. Click Submit.

   Siebel Communications displays the payment record in the Payments list and submits the payment to the billing application.

Process of Creating Account Adjustments or Payment Plans in Siebel Communications (End User)

A customer might have been incorrectly billed for a service and therefore might not have made a payment. In that case, end users must adjust the customer's billing account. Typically, they associate an account adjustment with a credit alert because it might solve a customer credit issue. The actual account adjustment is made in a third-party billing or accounts receivable application. However, Siebel Communications provides the ability to request an adjustment and to receive information about the outcome.

Another customer might be facing financial difficulties and is unable to meet obligations to pay for services. Such a customer might request a payment arrangement plan with installments or a deferral of payment. In response, your company can approve the request, reject the request, or propose its own terms. The response might depend on factors such as corporate policy, customer credit history or credit-worthiness, and length of the customer's association with your company. A payment arrangement plan is associated with a credit alert because it might resolve a customer credit issue.

The customer request is sent to the back-office credit management application for approval. The customer request can be approved in full, rejected entirely, or modified with new terms. The credit management application then sends the outcome back to Siebel Communications.

> **Note:** You can request either an installment plan or a payment deferral. For a deferral request, specify one installment to be paid at a future date.

To create account adjustments and payment plans, perform the following tasks:

1. *Submitting Requests for Account Adjustments or Payment Plans*
2. *Viewing Account Adjustment or Payment Plan Request Outcomes*
3. *Recording Customer Decisions About Account Adjustments or Payment Plans*

Submitting Requests for Account Adjustments or Payment Plans

End users first submit a request for an account adjustment or a payment plan.

This task is a step in *Process of Creating Account Adjustments or Payment Plans in Siebel Communications (End User)*.

Submitting Requests for Account Adjustments

To submit a request for an account adjustment, follow this procedure.

Note: It is possible to submit multiple account adjustment requests for a single account. However, this situation is not typical.

To submit a request for an account adjustment

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Account Adjustments view tab.

   The Account Adjustments list displays the history of adjustment requests.
4. In the Account Adjustments list, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Date	Select the date and time the request of the adjustment. This field defaults to current date and time.
Amount	Type the amount of the adjustment. This field defaults to amount owed on the credit alert.
Type	Select the type of adjustment request.
Status	Select the status of the request. This field defaults to a value of Open.
Reason	Select the reason for the adjustment.

Submitting Requests for Payment Arrangement Plans

To submit a request for a payment arrangement plan, follow this procedure.

To submit a request for a payment arrangement plan

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Payment Arrangements view tab.
4. In the Payment Arrangements form, select Payment Arrangement Details from the Show drop-down list.
5. In the Payment Arrangement Details form, add a record, and complete the necessary fields.

   Some fields are described in the following table.

Field	Comments
Plan Type	Select the type of payment arrangement plan.

Field	Comments
# of Installments	Type the number of installments for payment arrangement. For a single-payment deferral plan, this number is 1.
Installment Amount	Displays the amount of each installment. This field is automatically populated when you enter the number of installments. The installment amount equals the original amount due divided by the number of installments.
Original Amount Due	Type the total amount due.
Original Due Date	Select the original due date for payment.
Plan Start Date	Select the start date of the payment arrangement plan.
Plan End Date	Select the end date of the payment arrangement plan. For a single-payment deferral plan, use the same date for both the start date and the end date.
Status	Select a value of Pending for the status of the request.

6. Return to the Credit Alert List view.
7. In the Action Type field, select Payment Arrangement Requested.

Viewing History of Payment Arrangements

To view a history of payment arrangements, follow this procedure.

To view a history of payment arrangements

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Payment Arrangements view tab.
4. In the Payment Arrangements form, select Payment Arrangements from the Show drop-down list.

Viewing Account Adjustment or Payment Plan Request Outcomes

Typically, the account adjustments and payment arrangement plans are agreed upon in the back office, either manually or through a back-office application. The back-office application then sends the outcome of the customer request to Siebel Communications.

This task is a step in *Process of Creating Account Adjustments or Payment Plans in Siebel Communications (End User)*.

Viewing Outcomes of Account Adjustment Requests

To view the outcome of an account adjustment request, follow this procedure.

To view an account adjustment outcome

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Account Adjustments view tab.
4. In the Account Adjustments list, review the response of the credit management application to the adjustment request, specifically the Status, Amount Approved, and Approval Description fields.

Note: Each adjustment request is accompanied by a single adjustment outcome.

Viewing Outcomes of Payment Plan Requests

To view a payment arrangement for an account adjustment request, follow this procedure.

To view a payment arrangement plan outcome

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Payment Arrangements view tab.
4. Scroll down to the Payment Arrangements Outcome form to view the response of the credit management application to the adjustment request.

   Some of the fields are described in the following table.

Field	Comments
Installment Amount	Displays the payment amount for each installment. This amount can apply to a single payment or multiple installments.
Interest Charge	Displays the Interest owed on the payment arrangement plan. This amount is calculated by the back-office application.
# of Installments	Displays the number of installments.
Plan Type	Displays the type of payment arrangement plan.
Status	Displays the outcome of the request for the payment arrangement plan.
Total Amount Due	Displays the total owed, including accrued interest.

Recording Customer Decisions About Account Adjustments or Payment Plans

End users can record the customer's decision about the outcome.

This task is a step in *Process of Creating Account Adjustments or Payment Plans in Siebel Communications (End User)*.

Recording Customer Decisions About Account Adjustments

To record a customer's decision about an account adjustment outcome, follow this procedure.

To record the customer's decision about an account adjustment outcome

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Account Adjustments view tab.
4. In the Account Adjustments list, enter information in the Customer Decision and Customer Decision Date fields.

   > **Note:** If your company's policy does not require a customer decision regarding an account adjustment outcome, then the customer decision fields might not appear in Siebel Communications.

5. If the customer rejects the outcome, then discuss the options again and submit another request.

Recording Customer Decisions About Payment Plans

To record a customer's decision about a payment arrangement outcome, follow this procedure.

To record the customer's decision about a payment arrangement outcome

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. Click the Payment Arrangements view tab.
4. Scroll down to the Payment Arrangements Outcome form, and enter information in the Customer Decision and Customer Decision Date fields.

   > **Note:** If your company's policy does not require a customer decision regarding an account adjustment outcome, then the customer decision fields might not appear in Siebel Communications.

5. If the customer rejects the outcome, then discuss the options again and submit another request.

Process of Managing Collections in Siebel Communications (End User)

Collection management is the process of collecting payment from a subscriber after the end of the grace period for the amount due. Collection management involves performing a sequence of actions to collect the past due amount. If payment is not made after the grace period, a typical sequence of collection actions might, for example, consist of a reminder phone call or email, a reminder letter, a demanding phone call, a dunning letter, referral to a collection agency,

suspension of service, and cancellation of the account. The specific collection actions you perform may be different, depending on your company's business requirements.

Collection management involves integrating Siebel Communications with an external credit management application or the external Oracle Communications Billing and Revenue Management application. The integration functions as follows:

- The external application identifies bills that are past the due date and require collection. The external application transmits a notification that becomes a credit alert in Siebel Communications.
- When an account enters collections in the external application, its Billing Profile status changes from the color green (or a substatus of Exited Collections) to the color yellow (or a substatus of Entered Collections). Collection actions are performed, and billing statuses are updated in Siebel Communications automatically by the external application. When the account exits from collection, the billing profile status changes from yellow (or Entered Collections substatus) back to green (or Exited Collections substatus).

  > **Note:** The billing profile status of an account can be updated automatically only by the external application and cannot be changed manually in Siebel CRM.

- Billing statuses that have been updated in Siebel Communications are then synchronized with and updated in Oracle Communications Billing and Revenue Management.

To manage collections in Siebel Communications, perform the following tasks:

1. *Updating Collection Actions in Siebel Communications*
2. *Processing Collection Payments in Siebel Communications*
3. *Closing Collections Actions in Siebel Communications*

Updating Collection Actions in Siebel Communications

Collection actions appear in Siebel Communications as credit alerts. Most credit alerts are automatically created through batch updates from Oracle Communications Billing and Revenue Management. Credit alerts can also be entered manually. For more information about creating a credit alert, see *Reviewing and Adding a Credit Alert in Siebel Communications (End User)*.

You can update collection actions by changing the status of credit alerts. To view and update collection actions, follow this procedure.

This task is a step in *Process of Managing Collections in Siebel Communications (End User)*.

To update a collection action

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Query for credit alerts with a status of Open.

   The Credit Alerts list shows only those credit alerts that are associated with collection actions.
3. Select the credit alert that is associated with the collection action whose status you want to update.
4. View details of the credit alert.

   Some fields are described in the table that follows.

Field	Comments
Action Type	Type of action to be performed in relation to a credit alert. The action type might generate or require one or more activities. If the current credit alert is associated with

Field	Comments
	a collection action (that is, if its status is Open), this field will have one of the following values: o No Action o No Action - Impose Late Fee o No Action - Write-off o Courtesy Phone Call o Demanding Phone Call o Courtesy Email or SMS Reminder o Harsh Dunning Letter o Courtesy Dunning Letter o Suspend Services o Terminate Services o Refer to Outside Agency As collection actions are completed, you can change the value to another value on this list.
Billing Profile ID	Identifier code for the account billing profile with which this credit alert is associated. Read-only when credit alert is created in the external billing system.
Due Date	Date on which the current collection action is due.
Sub Status	Read only. If the current credit alert is associated with a collection action (that is, if its status is Open), this field displays one of the following values: o Entered Collections o Exited Collections As collection actions are completed, the value is updated from the external Oracle Communications Billing and Revenue Management application.

5. Change the Status field from Open to another, appropriate value.
6. Click Sync Status.

   The associated collection action is updated in the external Oracle Communications Billing and Revenue Management application.

Processing Collection Payments in Siebel Communications

One possible resolution for a collections credit alert involves the customer's full or partial payment of the amount outstanding. To process a payment for a collections credit alert, follow this procedure. For more information about processing payments for credit alerts, see *Entering Payments for Credit Alerts in Siebel Communications (End User)*.

This task is a step in *Process of Managing Collections in Siebel Communications (End User)*.

To process a collections payment

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Query for credit alerts with the status of Open.

   The Credit Alerts list shows only those credit alerts that are associated with collection actions.
3. Select the credit alert that is associated with the collection action for which you want to process a payment.
4. Click the link in the Billing Profile field.
5. Click the Payments view tab.
6. In the Payments list, create a new record.
7. Complete the Payment Date, Payment Method, and Payment Amount fields.
8. Click Submit.

Closing Collections Actions in Siebel Communications

When a credit alert is created by the external Oracle Communications Billing and Revenue Management application, its substatus is set to Entered Collections (and the billing profile status of the associated account changes to yellow). When you close a collections action credit alert, Siebel Communications updates the Billing Profile Status field and notifies the external Oracle Communications Billing and Revenue Management application. For more information about closing a credit alert, see *Closing a Credit Alert Manually in Siebel Communications (End User)*.

To close a collections action credit alert, follow this procedure.

This task is a step in *Process of Managing Collections in Siebel Communications (End User)*.

To close a collections action

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Query for credit alerts with the status of Open.

   The Credit Alerts list shows only those credit alerts that are associated with collection actions.
3. Select the credit alert that is associated with the collection action that you want to close.
4. Change the Status field to Closed, Rejected, or Cancelled, as applicable.
5. Click Sync Status.

Siebel Communications sends the closing actions to the external Oracle Communications Billing and Revenue Management application through the integration. When the account exits from collection in the external application, the external application sends a credit alert update with a substatus of Exited Collections and changes the associated billing profile status from the color yellow (or Entered Collections substatus) to the color green (or Exited Collections substatus).

Closing a Credit Alert Manually in Siebel Communications (End User)

After an outcome has been received and accepted (if necessary), you can close the credit alert manually in Siebel Communications.

CAUTION: Do not use this procedure if your Siebel CRM application is integrated with an external system. If you close a credit alert manually in Siebel Communications, that credit alert might remain open in the external application and cause a data mismatch. In an integrated environment, always allow credit alerts to be closed automatically by the external application. For more information about automatic credit alert updates, see *Process of Managing Collections in Siebel Communications (End User)*.

To close a credit alert manually

1. Navigate to the Credit Management screen, then the Credit Alert List view.
2. Drill down on the alert number of the credit alert.
3. In the Action Type field, select a value of Payment Arrangement Agreed.
4. In the Status field, select a value of Closed.

Additional End-User Tasks for Credit Management in Siebel Communications

For information about other tasks related to credit management, see *Siebel Field Service Guide* and *Siebel Applications Administration Guide* .

Financial Information Checks

Look at customer financial information, including bills and credit rating data, that might be useful in resolving credit alerts. For information about checking customer financial information, see *About Financial Profiles in Siebel Communications*.

14 Fraud Management in Siebel Communications

Fraud Management in Siebel Communications

This chapter describes the procedures for managing and responding to fraud alerts. It includes the following topics:

- *About Fraud Management in Siebel Communications*
- *Scenario for Using Fraud Management in Siebel Communications*
- *Viewing Fraud Alerts in Siebel Communications (End User)*
- *About Following Up with the Customer for a Fraud Alert*
- *Changing Fraud Thresholds in Siebel Communications (End User)*
- *Updating the Fraud Alert in Siebel Communications (End User)*
- *Additional End-User Tasks for Fraud Management in Siebel Communications*

About Fraud Management in Siebel Communications

Fraud occurs when someone uses a service to defraud a consumer, business, or service provider by obtaining free services or services that the individual concerned is not entitled to. Some of the more common methods and indicators of fraud follow:

- Cloning of mobile phones
- Stolen phones
- Unauthorized third-party charging of calls
- Stolen or fraudulently obtained calling cards and PINs
- Bills returned in the mail with a claim that the customer is not at that address.

Fraud can be identified in various ways. For example, a consumer might identify fraud on a bill, noting charges for services that were not requested or used. Alternatively, a service provider might identify irregular calling patterns that can indicate fraud.

Traditionally, companies have used legacy fraud management applications to identify and manage fraud. The fraud management process involves *fraud alerts*, warnings that a fraud might have been committed, which are generated by the fraud management application from an analysis of calling details. For example, an alert may be generated if the system detects calls originating from two different cities within a short time period. A common way to commit such a fraud is by cloning, illegally modifying a handset chip to send an identification signal for another, legal phone. This allows the owner of the illegal handset to make phone calls on the legal phone owner's account.

A fraud alert can also be generated by a breach of a fraud threshold. A *fraud threshold* is a value which, when exceeded, produces a fraud alert. For example, a customer may have a threshold limit of $250.00 per day for domestic calls.

The back-office application issues a fraud alert by placing the customer on a *fraud list*, a list of customer accounts that are suspected of or confirmed for fraud. The back-office application might generate multiple lists, classified by categories in descending order of the likelihood of fraud.

A back-office fraud management application usually has a front-office component, which is used to manage customer interactions related to fraud. Siebel Communications functions as the front-office application for managing fraud. Your company's back-office fraud management applications send fraud lists toSiebel Communications for follow-up. Customer service representatives (CSRs) go through the lists and contact the customers to check if they made the calls that are the cause of the fraud alerts.

Fraud alerts indicate the type of fraud that might have occurred. For example, Exceeds Threshold is a fraud alert type that indicates that a predefined limit has been exceeded. Another fraud alert type, Stolen Handset, indicates that a customer's mobile phone has been stolen.

To help you resolve cases of suspected or obvious fraud, Siebel Communications allows you to view fraud lists, fraud alerts, fraud-related background information about accounts, and the history of fraud-related activities for an account.

Scenario for Using Fraud Management in Siebel Communications

This topic gives one example of how fraud management might be used. You might use fraud management differently, depending on your business model.

A CSR is responsible for handling fraud issues for all of your small and medium-sized customers. A business customer has a contract for mobile subscriptions for the firm's employees. The owner is one of the mobile subscribers and is based in Rome.

The CSRs fraud management system notices that calls from the owner's mobile phone have originated in San Francisco and Los Angeles within a span of a few minutes. This can only happen when a mobile phone has been cloned. The fraud management system generates a fraud alert for the customer's account, with the fraud level set to Certain, the fraud type set to Invalid Calls, and fraud event set to Simultaneous Calls. The fraud management system also suspends the customer's account pending customer confirmation. The fraud message and the associated call detail records (CDRs) are forwarded to Siebel Communications. The fraud system creates the alert and flags the account. Through integration with the third-party system, the fraud data is sent to the CSR's Siebel application, and the account is flagged as fraudulent. The Siebel application creates a fraud alert and fraud alert details and updates the customer account with the fraud level.

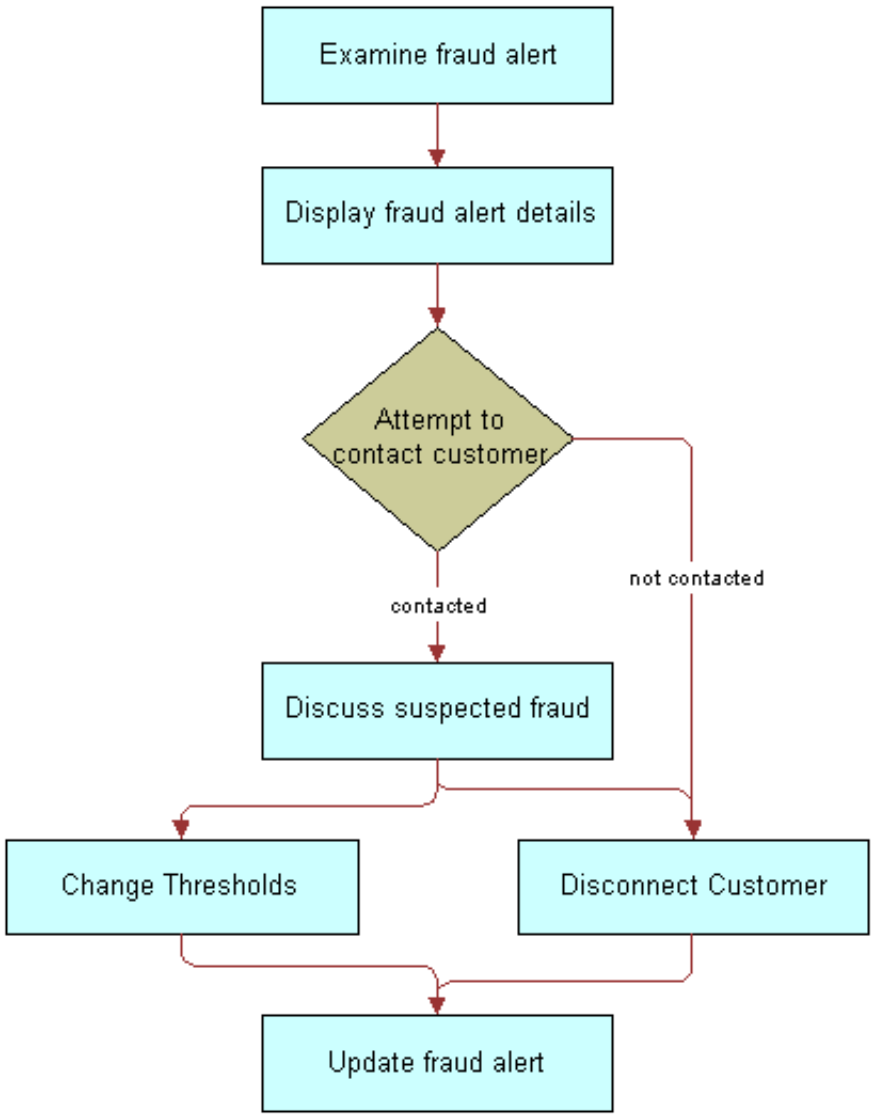
Siebel Communications has been configured to generate an activity to contact the customer. The fraud alert appears in the customer service supervisor's queue by default, and the supervisor assigns the fraud alert to the CSR, who then examines the fraud alert and associated fraud alert details. The CSR also checks for any other fraud alerts raised against the customer's account in the last 12 months to see if there is a history of fraud. This turns out to be the first fraud alert against this customer's account.

The CSR looks up contact information for the customer in Siebel Communications and telephones the owner, who is listed as the primary contact for the customer account. The owner mentions that he has not been to Los Angeles for more than two years, and is certain that the phone has been in his control during this period. The CSR informs him that there may have been a fraudulent use of his telephone number, and that the CSR will need to provide him with another telephone number. The customer agrees to take his handset to the nearest dealer who will help him with this process. The CSR updates the fraud alert's status and attaches appropriate comments.

Siebel Communications transmits this information to the fraud management system. The CSR's fraud management department then starts its formal investigation.

The following image shows a possible sequence for managing fraud, which includes the following steps:

1. Examine fraud alert.
2. Display fraud alert details.
3. Attempt to contact the customer.
    a. If successful in contacting the customer:
        - Discuss suspected fraud.
        - Change thresholds or disconnect customer.
    b. If unable to contact the customer, then disconnect the customer.
4. Update fraud alert.



Viewing Fraud Alerts in Siebel Communications (End User)

When a back-office application flags an account for fraud, Siebel Communications receives a fraud alert and fraud alert details.

In the course of investigating fraud, end users review the fraud alert to determine the type of fraud that might have occurred. End users then discuss the fraud alert details, which contain the specific data alleged to be fraudulent, with the customer.

Viewing Fraud Alerts

To view a fraud alert, follow this procedure.

To view a fraud alert

1. Navigate to the Fraud Management screen, then the Fraud Alert List view.
   Some fields in the list are described in the following table.

Field	Comments
Fraud Event	Displays the condition that indicates suspected fraud. The value in this field depends on the value in the Fraud Type field.
Alert #	Displays an alert number that is automatically generated.
Threshold Overflow	Displays the quantity by which the account's threshold level is exceeded.
Owner	Displays the primary person assigned to this account for fraud management purposes. This person is responsible for customer follow-up to determine whether fraud occurred.

2. Drill down on the alert number of the fraud alert.

Viewing Fraud Alert Details

To view fraud alert details, follow this procedure.

To view fraud alert details

1. Navigate to the Fraud Management screen, then the Fraud Alert List view.
2. Drill down on the alert number of the fraud alert.

3. Click the Event Details view tab.

   An Account form appears with the Event Details list. The Event Details list displays detailed information about the selected alert. This information typically includes the call detail records associated with the suspected fraudulent calls. Some fraud alerts (for example, Stolen Handset) might have no associated fraud alert details.

   Some fields in the Event Details list are described in the following table.

Field	Comments
Number Location	Displays the geographical location of the number dialed in a suspected fraudulent call.
Date/Time	Displays the date and time of the event.
Number Called	Displays the number dialed in a suspected fraudulent call.
Length	Displays the length of the service in seconds.
Rate	Displays the name of the rate plan used to calculate the charge (for example, Peak, Off-Peak, Standard, Economy, or International).
Charge	Displays the charges for the service from the Charge dialog box.

About Following Up with the Customer for a Fraud Alert

End users might establish contact with the customer. Your company might have a business rule that determines how many times end users must attempt to contact the customer.

If repeated attempts to contact the customer fail, then end users can disconnect the customer's service. Your company can configure Siebel Communications to send a message to this effect to the back-office application. Workflow Processes might be used for this configuration.

Changing Fraud Thresholds in Siebel Communications (End User)

End users can change thresholds in the fraud profile, if necessary. For example, if a breach of a credit threshold generated the fraud alert, then the customer can request a higher threshold. If this request is granted, then it might cancel the fraud alert.

To change a fraud threshold

1. Navigate to the Fraud Management screen, then the Fraud Alert List view.
2. Drill down on the account name of the fraud alert.
3. In the Fraud Account Profile form, change one or more of the fields.

   For information about the fields in the Fraud Account Profile form, see *Profiles in Siebel Communications*.

Updating the Fraud Alert in Siebel Communications (End User)

End users can indicate that some action has been taken by adding comments or by changing other fields in the fraud alert record, such as its status, priority, or owner.

To update a fraud alert

1. Navigate to the Fraud Management screen, then the Fraud Alert List view.
2. Select a fraud alert record.
3. In the Fraud Alert record, complete the necessary fields.

Additional End-User Tasks for Fraud Management in Siebel Communications

This topic contains information about another task related to fraud management.

Disconnecting Service

If necessary, end users can disconnect a customer's service because of the nature of the alert, a discussion with the customer, failure to contact the customer, or the company's policy. Depending on the severity of the alert, part or all of the customer's services (for example, international dialing) might already have been disconnected by the back-office application.

If your company has configured the Fraud Activities types to include Service Disconnect, then end users can add this activity to a fraud alert. For information about disconnecting a service, see *Siebel Order Management Guide Addendum for Communications* .

15 Defining Integration Workflows for Siebel Communications

Defining Integration Workflows for Siebel Communications

This chapter explains integration using prebuilt sample workflows that might be provided with your Siebel application or that might be available on request. It includes the following topics:

- *About Integration Workflows in Siebel Communications*
- *Terminology for Integration Workflows in Siebel Communications*
- *Sample Integration Workflows for Siebel Communications*
- *Sample Integration Workflow: CUT Send Account Data*
- *Sample Integration Workflow: CUT Get Account Data*
- *Sample Integration Workflow: CUT Receive Account Data*

About Integration Workflows in Siebel Communications

A *workflow process* is a sequence of steps that automates a business function. Some workflow processes (also known as business processes) allow your company to integrate Siebel Communications with back-office applications and databases. You can implement integration with third-party applications by using the following resources and techniques:

- **Prebuilt workflows.** Some prebuilt workflow processes are included in the sample database distributed with Siebel Communications, along with prebuilt integration objects in the Siebel Tools repository. If a workflow process mentioned in this chapter is not in your Siebel application's sample database, then it might be available on request. For help with requesting a workflow process, contact your Oracle sales representative to request assistance from Oracle's Professional Services.
- **Manual integration.** Your company can automate the integration between Siebel Communications and other applications manually. To automate the integration between Siebel Communications and other applications manually, you normally use both Oracle's Siebel Business Process Designer and Siebel Enterprise Application Integration (Siebel EAI).

Note: Triggers for some business processes (for example, a button-push or workflow policy) are defined during implementation of the workflow process.

This chapter covers the following subjects:

- Information about how sample integration workflow processes can be used to automate or partially automate a business process.
- Descriptions of sample integration workflow processes that are available in the Siebel Communications sample database.

- Details of sample workflow processes to help you understand how a workflow process is set up. Refer to these samples when you design your own integration workflow processes.

You can automate business processes using workflow processes in combination with Business Process Administration. This chapter does not give detailed information about Business Process Administration or application integration in general. For information about these topics, see *Siebel Business Process Framework: Workflow Guide* and the Siebel Enterprise Application Integration (Siebel EAI) guides, available on the *Siebel Bookshelf* .

> **Note:** The integration workflow processes discussed in this chapter are not Application Services Interfaces (ASIs), although they serve a similar function.

Terminology for Integration Workflows in Siebel Communications

This topic describes some terms used in this chapter in the context of workflow processes.

Siebel EAI. Siebel Enterprise Application Integration (Siebel EAI) is a set of tools, technologies, and prebuilt functional integrations that facilitate application integration. It supports message-based integration with external applications. Using Oracle's Siebel Enterprise Application Integration (Siebel EAI) module, a service provider can connect Siebel Communications directly to another application within the operational support architecture or connect to a hub or queue. This process allows middleware vendors to build their own Siebel-to-third-party connectors.

> **Note:** Integration with specific back-office applications or middleware packages is performed by your company. Siebel Business Applications offer prebuilt connectors to some back-office applications.

Integration Objects. Integration objects define the content of the messages that are initiated or received by Siebel Communications. They are based on business objects. The repository stores both integration objects and the mapping between business objects and integration objects.

Business Services. Business services act on objects to move data, convert data formats, and perform calculations. The Siebel Communications repository contains some business services that specifically help with integration tasks. You can also build your own in Siebel Tools (at design time) or in the Siebel Web client (at run time).

Workflow Processes. Workflow processes are sequences of steps that are used by Business Process Administration to automate a business function. Workflow process steps call business services that perform the procedures needed to perform a business process.

Synchronizing Phone Number Data with an External System

End users create or modify a phone number in Siebel Communications, and the phone number is synchronized with one or more back-office systems using the CUT Send Phone Number Data workflow process. The workflow process used to perform this scenario is *CUT Receive Phone Number Data Workflow*.

> **Note:** This process describes the exchange of phone number data. It is assumed that the phone number data are stored as Assets in the Siebel database. This process can be applied to any Asset data.

Synchronizing External Phone Number Data with Siebel Communications

End users create or modify a phone number in an external application, and the phone number data is synchronized with Siebel Communications using the CUT Receive Phone Number Data workflow process. The workflow process used to perform this scenario is *CUT Receive Phone Number Data Workflow*.

> **Note:** This process describes the exchange of phone number data. It is assumed that the phone number data are stored as Assets in the Siebel database. This process can be applied to any Asset data.

Responding to an External Inquiry for Phone Number Data

The external system requires phone number (asset) data. The external application calls the CUT Get Phone Number Data workflow process using the available Siebel object interfaces. The external application retrieves the data from Siebel Communications using the workflow process as an API. The workflow process used to perform this scenario is *CUT Get Phone Number Data Workflow*.

> **Note:** This process describes the exchange of phone number data. It is assumed that the phone number data are stored as Assets in the Siebel database. This process can be applied to any Asset data.

Sample Integration Workflows for Siebel Communications

This topic describes the sample integration workflow processes.

> **Note:** Sample workflows must be imported into your database. For information about importing these workflows, see *Siebel Business Process Framework: Workflow Guide* .

Some workflow process steps call other workflow processes. For example, the first step of the CUT Send Account Data workflow process calls the CUT Get Account Data workflow process. In this example, the CUT Get Account Data workflow process is a subprocess of the CUT Send Account Data workflow process.

Some sample workflow processes communicate using the EAI MQSeries Transport business service. If your company does not use MQ Series, then you can replace the appropriate step with one that uses either a custom transport business service, the provided HTTP business service, or the provided XML file business service. Business services are located in the Oracle's Siebel Tools repository and are available for use when defining workflow processes.

The integration objects used in the samples follow:

- CUT Sample Account IO
- CUT Sample Asset IO

- CUT Sample Credit Alert IO
- CUT Sample Fraud Alert IO
- CUT Sample Sales Order IO
- CUT Sample Service Profile IO
- CUT Sample Trouble Ticket IO
- CUT Sample Work Order IO

Note: The Integration Object mentioned in this topic is specified in XML. It is not specified as a Business Service Input Argument.

CUT Send Account Data Workflow

This workflow sends to back-office applications the customer account data that end users create or modify in Siebel Communications.

Workflow Description. This workflow performs the following actions:

1. **Get Account Data.** This step invokes the CUT Get Account Data subprocess. For more information, see *CUT Get Account Data Workflow*.
2. **Send Account Data.** This step invokes the EAI MQSeries Server Transport business service.

CUT Get Account Data Workflow

This workflow retrieves account data from Siebel Communications to respond to a request from an external application. The external application calls the CUT Send Account Data workflow using the available Siebel object interfaces. The CUT Send Account Data workflow calls this workflow. The external application retrieves the data from Siebel Communications, using this workflow as an API.

Workflow Description

This workflow performs the following actions:

1. **Get Account Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Account IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Account Data Workflow

This workflow receives customer account data that is modified in a back-office application because the data must be updated in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Receive Account Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.

2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Account.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Send Service Profile Data Workflow

This workflow synchronizes the service profile data that end users create or modify in with the service profile data in back-office applications.

Workflow Description

This workflow performs the following actions:

1. **Get Service Profile Data.** This step invokes the CUT Get Service Profile Data subprocess. For more information, see *CUT Get Service Profile Data Workflow*.
2. **Send Service Profile Data.** This step uses the EAI MQSeries Server Transport business service.

CUT Get Service Profile Data Workflow

This workflow retrieves service profile data from Siebel Communications to respond to a request from an external application. The external application calls the CUT Send Service Profile Data workflow using the available Siebel object interfaces. The CUT Send Service Profile Data workflow calls this workflow. The external application retrieves the data from Siebel Communications, using this workflow as an API.

Note: A service profile contains the same information in the Installed Assets view of the Accounts screen.

Workflow Description

This workflow performs the following actions:

1. **Get Service Profile Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Service Profile IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Service Profile Data Workflow

This workflow synchronizes service profile data that end users create or modify in an external application with the service profile data in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Receive Service Profile Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.

3. **Update Service Profile.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Send Sales Order Data Workflow

This workflow sends to back-office applications the sales order data that end users create in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Get Sales Order Data.** This step invokes the CUT Get Sales Order Data subprocess. For more information, see *CUT Get Sales Order Data Workflow*.
2. **Send Sales Order Data.** This step uses the EAI MQSeries Server Transport business service.

CUT Get Sales Order Data Workflow

This workflow retrieves sales order data from Siebel Communications to respond to a request from an external application. The external application calls this workflow using the available Siebel object interfaces. The external application retrieves the data from Siebel Communications directly, using this workflow as an API.

Workflow Description

This workflow performs the following actions:

1. **Get Sales Order Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Sales Order IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Sales Order Data Workflow

This workflow receives sales order data that is modified in a back-office application because the data must be updated in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Receive Sales Order Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Sales Order.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Send Work Order Data Workflow

This workflow sends to back-office applications the work order data that end users create in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Get Work Order Data.** This step invokes the CUT Get Work Order Data subprocess. For more information, see *CUT Get Work Order Data Workflow*.
2. **Send Work Order Data.** This step uses the EAI MQSeries Server Transport business service.

CUT Get Work Order Data Workflow

This workflow retrieves work order data from Siebel Communications to respond to a request from an external application. The external application calls this workflow using the available Siebel object interfaces. The external application retrieves the data from Siebel Communications directly, using this workflow as an API.

Workflow Description

This workflow performs the following actions:

1. **Get Work Order Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Work Order IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Work Order Data Workflow

This workflow receives work order data that is modified in a back-office application because the data must be updated in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Receive Work Order Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Work Order.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Send Trouble Ticket Data Workflow

This workflow sends to back-office applications the trouble ticket data that customers create through a Siebel Communications customer application or through a phone call to a CSR.

> **Note:** Customers have different requirements, and only certain types of trouble tickets must be sent to back-office applications. Some trouble tickets can be managed entirely within Siebel Communications. The supporting integration process is designed for trouble tickets that are sent to the back office. During implementation of a workflow process, the trigger must be implemented in such a way that the workflow process is invoked only for trouble tickets that are sent to the back office.

Workflow Description

This workflow performs the following actions:

1. **Get Trouble Ticket Data.** This step invokes the CUT Get Trouble Ticket Data subprocess. For more information, see *CUT Get Trouble Ticket Data Workflow*.
2. **Send Trouble Ticket Data.** This step uses the EAI MQSeries Server Transport business service.

CUT Get Trouble Ticket Data Workflow

This workflow retrieves trouble ticket data from Siebel Communications to respond to a request from an external application. The external application calls this workflow using the available Siebel object interfaces. The external application retrieves the data from Siebel Communications directly, using this workflow as an API.

Workflow Description

This workflow performs the following actions:

1. **Get Trouble Ticket Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Trouble Ticket IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Trouble Ticket Data Workflow

This workflow creates a trouble ticket in a back-office application and sends it to Siebel Communications. Updates to trouble tickets stored in a back-office application are communicated to Siebel Communications in the same way, allowing CSRs to see the latest information about externally generated trouble tickets.

Workflow Description

This workflow performs the following actions:

1. **Receive Trouble Ticket Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Trouble Ticket.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Receive Fraud Alert Data Workflow

This workflow creates a fraud alert record in a back-office application and sends it to Siebel Communications. Updates to fraud alert information stored in the back-office application are communicated toSiebel Communications in the same way, allowing CSRs to see the latest information about externally generated alerts.

Workflow Description

This workflow performs the following actions:

1. **Receive Fraud Alert Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Fraud Alert.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Receive Credit Alert Data Workflow

This workflow creates a credit alert record in a back-office application and sends it to Siebel Communications. Updates to credit alert information stored in the back-office application are communicated toSiebel Communications in the same way, allowing CSRs to see the latest information about externally generated alerts.

Workflow Description

This workflow performs the following actions:

1. **Receive Credit Alert Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Trouble Ticket.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

CUT Send Phone Number Data Workflow

This workflow sends to back-office applications the phone number data that end users create in Siebel Communications.

Workflow Description

This workflow performs the following actions:

1. **Get Phone Number Data.** This step invokes the CUT Get Phone Number Data subprocess. For more information, see *CUT Get Phone Number Data Workflow*.
2. **Send Phone Number Data.** This step uses the EAI MQSeries Server Transport business service.

CUT Get Phone Number Data Workflow

This workflow retrieves phone number data from Siebel Communications to respond to a request from an external application. The external application calls this workflow using the available Siebel object interfaces. The external application retrieves the data from Siebel Communications directly, using this workflow as an API.

Workflow Description

This workflow performs the following actions:

1. **Get Phone Number Data.** This step uses the Query method of the EAI Siebel Adapter business service and the CUT Sample Asset IO.
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the EAI XML Converter business service.

CUT Receive Phone Number Data Workflow

This workflow receives phone number data that is modified in a back-office application because the data must be updated in Siebel Communications.

Workflow Description

This workflow performs the following actions:

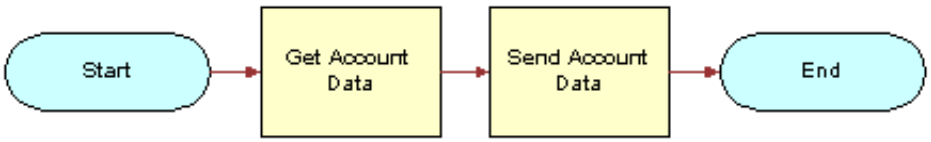
1. **Receive Phone Number Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service.
2. **Convert to Internal.** This step uses the XML Document to Integration Hierarchy method of the EAI XML Converter business service.
3. **Update Phone Number.** This step uses the Insert or Update method of the EAI Siebel Adapter business service.

Sample Integration Workflow: CUT Send Account Data

This topic examines a send-type sample workflow process to help you understand how the workflow process is set up.

This sample workflow process sends an XML string, created from an account record, to an IBM MQSeries queue. For more information about profiles, see *Profiles in Siebel Communications*.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Get Account Data.** This step invokes the Get Account Data subprocess. For more information about this workflow, see *Sample Integration Workflow: CUT Get Account Data*.
2. **Send Account Data.** This step invokes the EAI MQSeries Server Transport business service to put the XML message onto the MQSeries queue, called Employee. The message is represented by the Message Text argument.

   The Queue Manager Name and Physical Queue Name are defined during the MQSeries setup. The Account XML message is sent to the queue specified by the Physical Queue Name property, which is managed by the queue manager specified in the Queue Manager Name property.

CUT Send Account Data Workflow Properties

Properties that apply to all steps of a workflow process are called *workflow process properties*. These properties apply to all workflow processes. These properties follow:

- Error Message
- Error Code
- Object Id
- Siebel Operation Object Id

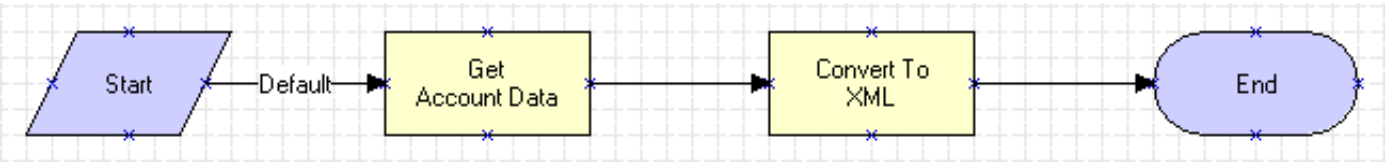
The CUT Send Account Data workflow has the following additional properties:

- **Account XML.** Specifies the Siebel object that has been converted to XML.
- **Input: Siebel Int Object Name.** Specifies the input Integration Object used in send workflows.
- **Process Instance Id.** Specifies the process instance and is automatically populated when a process is executed and persistence is enabled.

Sample Integration Workflow: CUT Get Account Data

The sample workflow subprocess retrieves account data.

The following shows this subprocess.



Workflow Description

This workflow performs the following actions:

1. **Get Account Data.** This step uses the query method of the EAI Siebel Adapter business service to get an instance of an account record from the Siebel database. The CUT Sample Account IO describes the structure of the Account business object and was created using the Integration Object Builder. The other part of the query criteria is the Object Id, which is a process property that contains the row ID for the account in the sample DB.

   > **Note:** The CUT Sample Account IO value is actually specified as a process property that is used as the input argument for the process step.

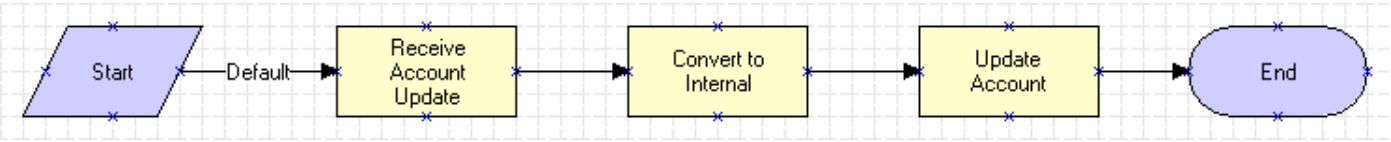
2. **Convert to XML.** This step uses the Integration Object Hierarchy to XML Document method of the Siebel EAI XML Converter business service to convert the outbound Siebel Message to XML and store it in the Account XML output argument.

Sample Integration Workflow: CUT Receive Account Data

This topic examines a receive-type sample workflow process to help you understand how the workflow process is set up.

This sample workflow process receives an XML string from an IBM MQSeries queue and updates the Account instance in the Siebel database.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Receive Account Update.** This step uses the Receive method of the EAI MQSeries Server Transport business service to retrieve the inbound message from the Account physical queue. This queue is named in the Physical Queue Name argument.

   In this case, the output from the receive step is put into the Account XML process property. The assumption is that the inbound message is already in XML format.
2. **Convert to Internal.** This step uses the XML Document to Integration Object Hierarchy method of the Siebel EAI XML Converter business service to convert the inbound message to the Siebel business object format.

   The output argument from this step is stored in the Account Message process property, in the Siebel Message format.
3. **Update Account.** This step uses the Insert or Update method of the EAI Siebel Adapter business service to perform the updating task. The EAI Siebel Adapter business service checks the Siebel database for an Account record that matches the current instance of Account in the Account Message property, and completes the following actions:

   - If an Account record matching the current instance does not appear in the database, then the adapter inserts the record into the database.
   - If an Account record in the database matches the current instance, then the adapter updates the record with the instance.

CUT Receive Account Data Workflow Properties

Set workflow process properties when you need a property to be true for the entire workflow. For example, the CUT Receive Account Data workflow process has five properties. The Error Message, Error Code, Object Id, and Siebel Operation Object Id properties are included in each workflow process by default. The Account XML property defines the MQSeries message as XML recognizable by Oracle's Siebel Business Applications.

The CUT Receive Account Data workflow process has the following additional properties:

- **Account Message.** Contains the object in its Siebel Communications hierarchical format when converted. It must be in this format before it can be inserted or updated in Siebel Communications.
- **Account XML.** Specifies the Siebel object that has been converted to XML.
- **Process Instance Id.** Specifies the process instance and is automatically populated when a process is executed and persistence is enabled.

16 Defining Billing Profile Workflows for Siebel Communications

Defining Billing Profile Workflows for Siebel Communications

This chapter includes the following topics:

- *About Billing Profile Workflows for Siebel Communications*
- *Workflows for Synchronization*
- *Workflow to View Content in the Billing Profile Portal*
- *Workflows to Enter Adjustments in the Billing Profile Portal*
- *Workflows to Manage Contacts, Accounts, and Payments*

About Billing Profile Workflows for Siebel Communications

A *workflow process* is a sequence of steps that automates a business function. Some workflow processes (also known as business processes) allow your company to manage operations associated with billing profiles.

Workflows for Synchronization

This group of workflows synchronizes data between the Siebel CRM application and the billing application. It consists of the following workflow processes:

- *CMU Account Sync Workflow*
- *CMU Address Sync Workflow*
- *CMU Contact Sync Workflow*
- *CMU Profile Sync Workflow*
- *SWI Account Update Workflow*
- *SWI Address Update Workflow*
- *SWI Contact Update Workflow*
- *SWI Billing Profile Update Workflow*
- *SWI Special Rating - Synchronize Process*
- *SWIAdjustmentStatusUpdate*

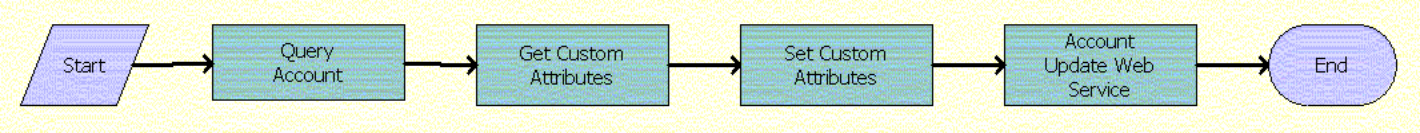
- *CMU Credit Alert Status Sync*

CMU Account Sync Workflow

This workflow synchronizes account data between the Siebel CRM application and the billing application.

The following shows this workflow.

A user initiates this workflow by creating an account record or by changing any field in the business component for an account record in the Siebel CRM application.



Workflow Description

This workflow performs the following actions:

1. **Query Account**. Queries for the updated account details.
2. **Get Custom Attributes**. Reads the enterprise details, such as the enterprise server name, language, and locale.
3. **Set Custom Attributes**. Sets the enterprise details as part of the request message.
4. **Account Update Web Service**. Calls an asynchronous proxy Web service to send the account details to the billing application.

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

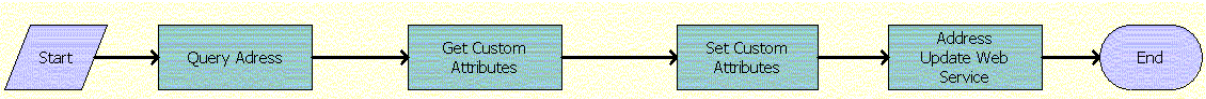
Workflow Step	Method Called	In Business Service
Query Account	QueryById	CMU Query Account Service
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service
Account Update Web Service	UpdateCustomerParty	UpdateCustomerSiebelJMSProducer

CMU Address Sync Workflow

This workflow synchronizes address data between the Siebel CRM application and the billing application.

The following shows this workflow.

A user initiates this workflow by creating an address record or by changing any field for the business component for an address record in the Siebel CRM application.



Workflow Description

This workflow performs the following actions:

1. **Query Address**. Queries for the updated address details.
2. **Get Custom Attributes**. Reads the enterprise details, such as the enterprise server name, language, and locale.
3. **Set Custom Attributes**. Sets the enterprise details as part of the request message.
4. **Address Update Web Service**. Calls an asynchronous proxy Web service to send the address details to the billing application.

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 Address	QueryById	CMU Query Address Service
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service
Address Update Web Service	UpdateCustomerPartyAddress	UpdateCustomerSiebelJMSProducer

CMU Contact Sync Workflow

This workflow synchronizes contact data between the Siebel CRM application and the billing application.

The following shows this workflow.

A user initiates this workflow by creating a contact record or by changing any field for the business component for a contact record in the Siebel CRM application.



Workflow Description

This workflow performs the following actions:

1. **Query Contact**. Queries for the updated contact details.
2. **Get Custom Attributes**. Reads the enterprise details, such as the enterprise server name, language, and locale.
3. **Set Custom Attributes**. Sets the enterprise details as part of the request message.
4. **Contact Update Web Service**. Calls an asynchronous proxy Web service to send the contact details to the billing application.

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

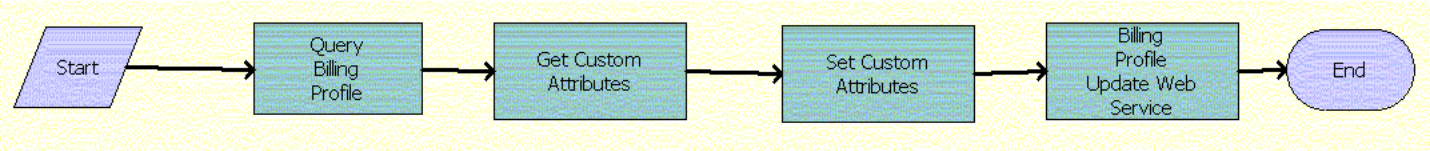
Workflow Step	Method Called	In Business Service
Query Contact	QueryById	CMU Query Contact Service
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service
Contact Update Web Service	UpdateCustomerPartyContact	UpdateCustomerSiebelJMSProducer

CMU Profile Sync Workflow

This workflow synchronizes billing profile data between the Siebel CRM application and the billing application.

The following shows this workflow.

A user initiates this workflow by creating a billing profile record or by changing any field for the business component for a billing profile record in the Siebel CRM application.



Workflow Description

This workflow performs the following actions:

1. **Query Billing Profile**. Queries for the updated billing profile details.
2. **Get Custom Attributes**. Reads the enterprise details, such as the enterprise server name, language, and locale.
3. **Set Custom Attributes**. Sets the enterprise details as part of the request message.
4. **Billing Profile Update Web Service**. Calls an asynchronous proxy Web service to send the billing profile details to the billing application.

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

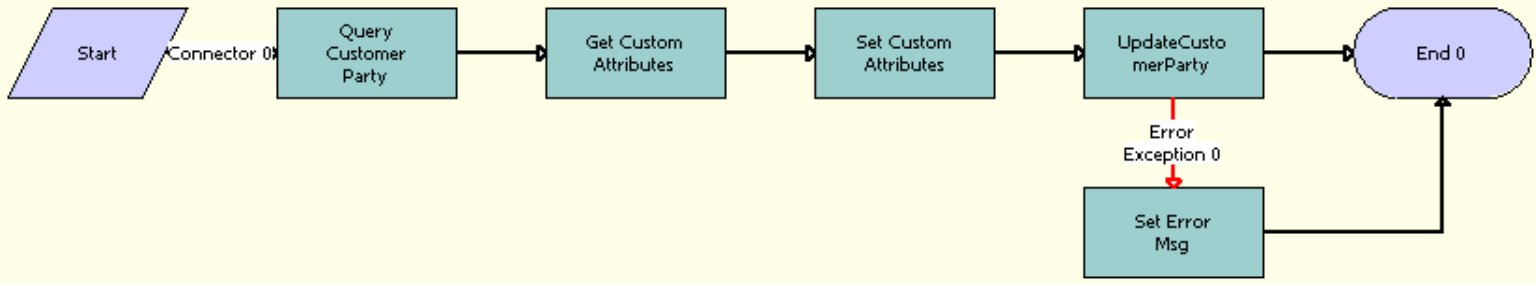
Workflow Step	Method Called	In Business Service
Query Billing Profile	QueryById	CMU Query Billing Profile Service
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service

Workflow Step	Method Called	In Business Service
Billing Profile Update Web Service	UpdateCustomerPartyBillingProfile	UpdateCustomerSiebelJMSProducer

SWI Account Update Workflow

This workflow calls the outbound service to synchronize the account details from the Siebel application with the external application. It is called when a change is made to account details.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Query Customer Party.** Queries for the Account Id of an account in which a change has been made. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Get Custom Attributes.** Gets details about Oracle's Siebel Enterprise Server, such as the language and locale details.
3. **Set Custom Attributes.** Sets the Siebel Enterprise Server details, such as the language and locale values, in the request message to make an outbound Web service call.
4. **UpdateCustomerParty.** Calls the Aggregateaccountevent method of the SyncCustomerSiebelEventAggregator business service and updates the customer party. If the response received contains an error, then the workflow proceeds to the Set Error Msg step.
5. **Set Error Msg.** If an error occurs in the previous step, then this step displays an error message.

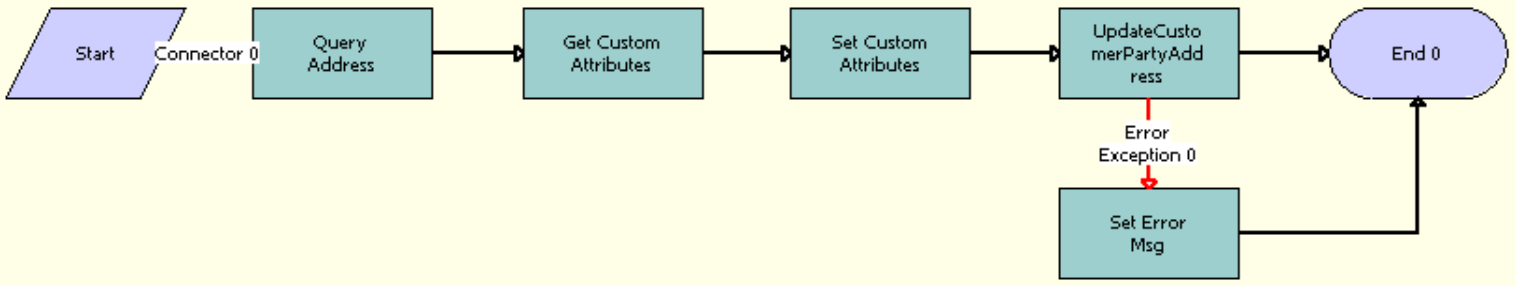
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
UpdateCustomerParty	Aggregateaccountevent	SyncCustomerSiebelEventAggregator
Set Error Msg	CheckAndSetError	SWI External Integration Service

SWI Address Update Workflow

This workflow calls the outbound service to synchronize the address details from the Siebel application with the external application. It is called when a change is made to the address details.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Query Address.** Queries for the Address Id of an address in which a change has been made. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Get Custom Attributes.** Gets Siebel Enterprise Server, such as the language and locale details for the server.
3. **Set Custom Attributes.** Sets the Siebel Enterprise Server details, such as the language and locale values, in the request message to make an outbound Web service call.
4. UpdateCustomerPartyAddress. Calls the Aggregateaddressevent method of the SyncCustomerSiebelEventAggregator business service and updates the customer party. If the response received contains an error, then the workflow proceeds to the Set Error Msg step.
5. Set Error Msg. If an error occurs in the previous step, then this step displays an error message.

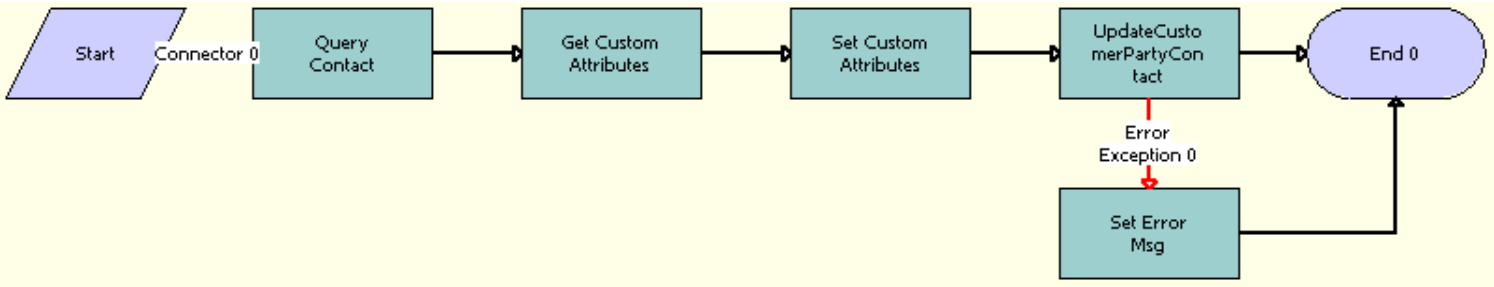
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
UpdateCustomerPartyAddress	Aggregateaddressevent	SyncCustomerSiebelEventAggregator
Set Error Msg	CheckAndSetError	SWI External Integration Service

SWI Contact Update Workflow

This workflow calls the outbound service to synchronize the contact details from the Siebel application with the external application. It is called when a change is made to contact details.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Query Contact.** Queries for the Contact Id of a contact in which a change has been made. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Get Custom Attributes.** Gets the language and locale details for the Siebel Enterprise Server.
3. **Set Custom Attributes.** Sets the Siebel Enterprise Server details, such as the language and locale values, in the request message to make an outbound Web service call.
4. UpdateCustomerPartyContact. Calls the aggregatecontactevent method of the SyncCustomerSiebelEventAggregator business service and updates the customer party. If the response received contains an error, then the workflow proceeds to the Set Error Msg step.
5. Set Error Msg. If an error occurs in the previous step, then this step displays an error message.

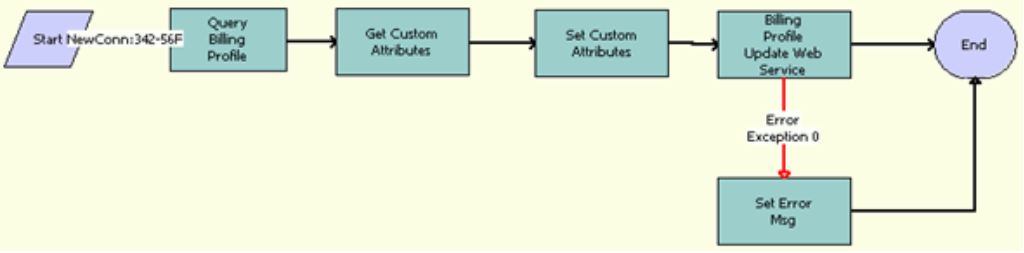
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
UpdateCustomerPartyContact	aggregatecontactevent	SyncCustomerSiebelEventAggregator
Set Error Msg	CheckAndSetError	SWI External Integration Service

SWI Billing Profile Update Workflow

This workflow calls the outbound service to synchronize the billing profile details from the Siebel application with the external application. It is called when a change is made to the billing profile details.

The following shows this workflow.



Workflow Description

This workflow performs the following actions:

1. **Query Billing Profile.** Queries for the Billing Profile Id of a billing profile in which a change has been made. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Get Custom Attributes.** Gets the language and locale details for the Siebel Enterprise Server.
3. **Set Custom Attributes.** Sets the Siebel Enterprise Server details, such as the language and locale values, in the request message to make an outbound Web service call.
4. Billing Profile Update Web Service. Calls the aggregatebpevent method of the SyncCustomerSiebelEventAggregator business service and updates the customer party. If the response received contains an error, then the workflow proceeds to the Set Error Msg step.
5. Set Error Msg. If an error occurs in the previous step, then this step displays an error message.

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

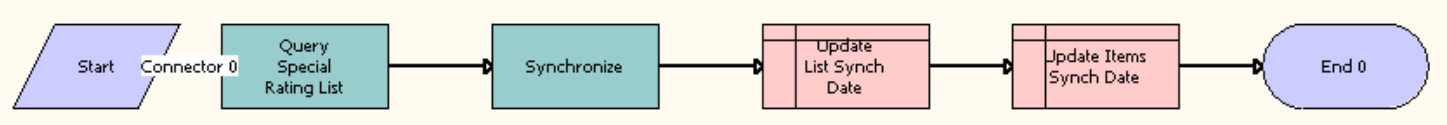
Workflow Step	Method Called	In Business Service
Billing Profile Update Web Service	aggregatebpevent	SyncCustomerSiebelEventAggregator
Set Error Msg	CheckAndSetError	SWI External Integration Service

SWI Special Rating - Synchronize Process

This workflow calls a proxy business service to query and synchronize an updated Special Rating List with the external Oracle Communications Billing and Revenue Management application.

The following shows this workflow.

This workflow is called when a user clicks the Synchronize button in the Accounts Screen, Profiles view, Special Rating Profile subview, and then Special Rating List applet.



Workflow Description

This workflow performs the following actions:

1. **Query Special Rating List**. Queries the modified Special Rating list details with Special Rating list ID and active Special Rating list items. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Synchronize**. Synchronizes the special rating details through an outbound Web service call.
3. **Update List Synch Date**. Updates the value of the Last Synchronized Date field to the current timestamp for the updated special rating list.

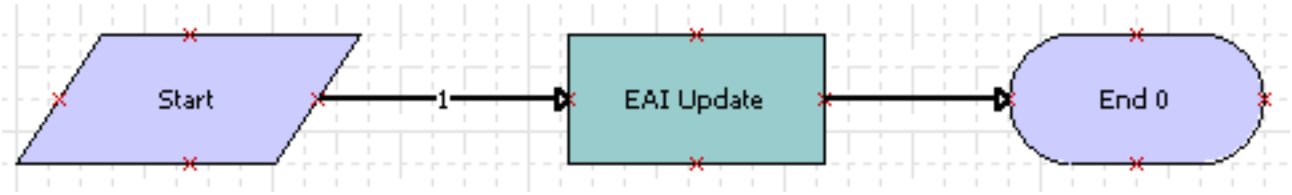
4. **Update Items Synch Date**. Updates the value of the Last Synchronized Date field as the current timestamp for each of the updated special rating list items.

SWIAdjustmentStatusUpdate

This workflow updates the status, substatus, and description of an adjustment record that is sent by a billing application.

The following shows this workflow.

This workflow is called by the SWIAdjustmentStatusUpdate inbound Web service.



Workflow Description

This workflow performs the following action:

- **EAI Update**. Updates the Status, Sub Status, and Status Description fields of an adjustment record. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then any field of the type DTYPE_UTCDATETIME in the payload must be in UTCCanonical format. While writing these fields to the business component, these fields are converted to the locale-specific date and time.

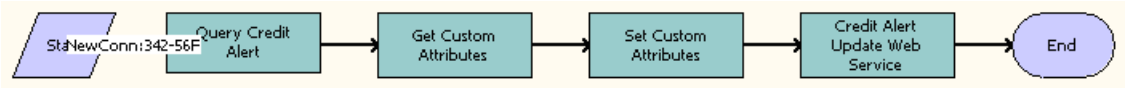
CMU Credit Alert Status Sync

This workflow updates the status of a credit alert from Siebel Communications to the external Oracle Communications Billing and Revenue Management application.

The following shows this workflow.

A user initiates this workflow by changing the status of a credit alert to Closed, and clicking the Synch Status button.

Note: The Synch Status button is enabled only when a credit alert is created by a third-party application. Consequently, this workflow can be called only when the credit alert's Integration ID is not NULL.



Workflow Description

This workflow performs the following actions:

1. **Query Credit Alert**. Queries the Siebel database for the credit alert ID. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.

2. **Get Custom Attributes**. Gets the parameters for the existing details from the server, such as the name, language, and locale, to add to the request message in the outbound Web service.
3. **Set Custom Attributes**. Adds the enterprise server parameters to the request message.
4. **Credit Alert Update Web Service**. Synchronizes the credit alert status with the external application.

Workflow to View Content in the Billing Profile Portal

This workflow allows users to view content in the Billing Profile portal. It consists of one workflow process.

SIA External Integration Process Workflow

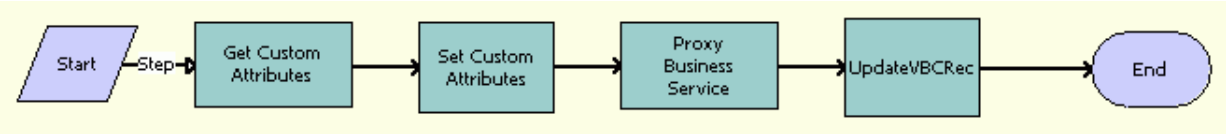
This workflow retrieves and displays data from a billing application. This data consists of information about top-up requests, current account balances, and usage activity for an account. This workflow displays the content in the Billing Profile portal. This content includes balance group, usage that is not billed, bill, and bill payment information.

This workflow is called in the following situations:

- When the user clicks the Name field of a billing profile in the Billing Profile list of the Account Summary view.
- When the user accesses or navigates to the following views in the billing profile portal:
  - Balance Group
  - Unbilled Usage
  - Bills
  - Payments

This workflow is not called from within the Adjustments view.

The following shows the SIA External Integration Process workflow.



Workflow Description

This workflow performs the following actions:

1. Get Custom Attributes. Reads the enterprise details, such as the Siebel Enterprise Server name, language, and locale.
2. Set Custom Attributes. Sets the enterprise details as part of the request message.
3. Proxy Business Service. This step performs the following work:
   a. Calls the appropriate proxy business service as determined by the input that is passed to the business service.
   b. Calls the WSDL file on the integration server to get the response in Siebel Message format. In Oracle Application Integration Architecture 2.5, the workflow passes the Proxy BS Fault input argument for customized fault handling. If there is a fault, then the business service returns the fault code, a summary, and a detail in the output argument.

> **Note:** You must create the proxy business services that this workflow calls. Also, for the virtual business components (VBCs) that use these services, you must configure the user properties.

4. UpdateVBCRec. Retrieves the data from the Siebel message and stores the data in the 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
Get Custom Attributes	GetEnterpriseParameters	CMU External Integration Service
Set Custom Attributes	SetAttributesToMessage	CMU External Integration Service
Proxy Business Service	InvokeAndValidateProxy	SWI External Integration Service
UpdateVBCRec	AddSiebelMessage	CMU External Integration Service

The business service names depend on the Name tags in the WSDL file that you generate when you create the proxy business services.

Workflows to Enter Adjustments in the Billing Profile Portal

This group of workflows allows users to enter adjustments for bills in the Billing Profile portal. It consists of the following workflow processes and subprocess:

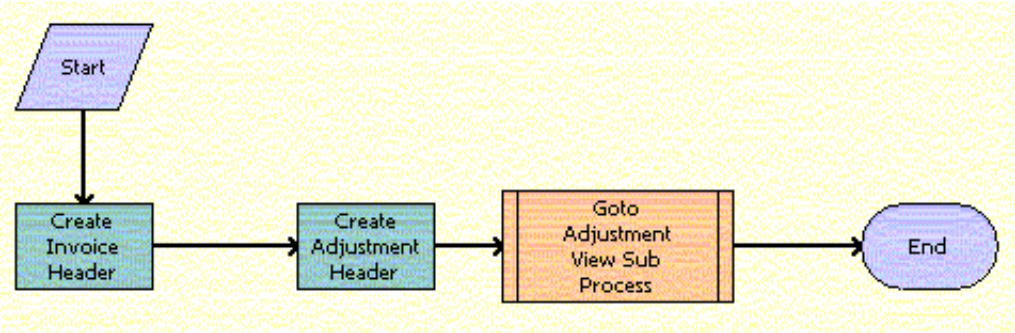
- *CMUInvoiceAdjustmentWF*
  - *CMUInvoiceQueryWF*
- *CMUItemChargeAdjustmentWF*
  - *CMUItemChargeQueryWF*
- *CMUEventDetailsAdjustmentWF*
  - *CMUEventDetailsQueryWF*
- *CMUBalanceDetailEventAdjustmentWF*
  - *CMU Adjustment View Sub Process*
- *CMU SIA Submit Adjustment Request to External*
- *CMUUnbilledEventAdjustmentWF Workflow*
- *CMUUnbilledNonCurrencyEventAdjustmentWF Workflow*

CMUInvoiceAdjustmentWF

This workflow creates appropriate adjustment request detail when a user adjusts an entire bill.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for an entire bill.



Workflow Description

This workflow performs the following actions:

1. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check if the bill exists in the Siebel database. If the bill does not exist, then it creates the bill header. For more information, see *CMUInvoiceQueryWF*.
2. **Create Adjustment Header**. Creates the adjustment request header, and defaults the Request Amount and the Approved Amount to 0. The Bill Number is populated with the Bill Number of the bill on which the adjustment is being made. The Adjustment Class is set to Billed for all adjustments made on the bill, whether at the item, event, or bill level.
3. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the adjustment view. For more information, see *CMU Adjustment View Sub Process*.

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 Invoice Header	CMUInvoiceDataTransfer	CMU Util UI Service
Create Adjustment Header	CMUAdjustmentDataTransfer	CMU Util UI Service

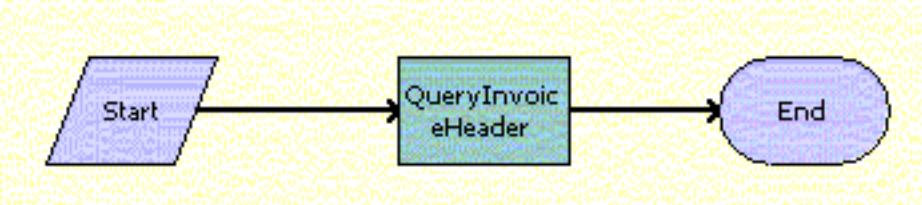
CMUInvoiceQueryWF

This workflow finds a particular bill in the Siebel database.

The following shows this workflow.

The following workflows call this workflow as a subprocess:

- CMUInvoiceAdjustmentWF
- CMUItemChargeAdjustmentWF
- CMUEventDetailsAdjustmentWF
- CMUBalanceDetailsEventAdjustmentWF



Workflow Description

This workflow performs the following action:

- **QueryInvoiceHeader**. Checks if a bill exists in the Siebel database.

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

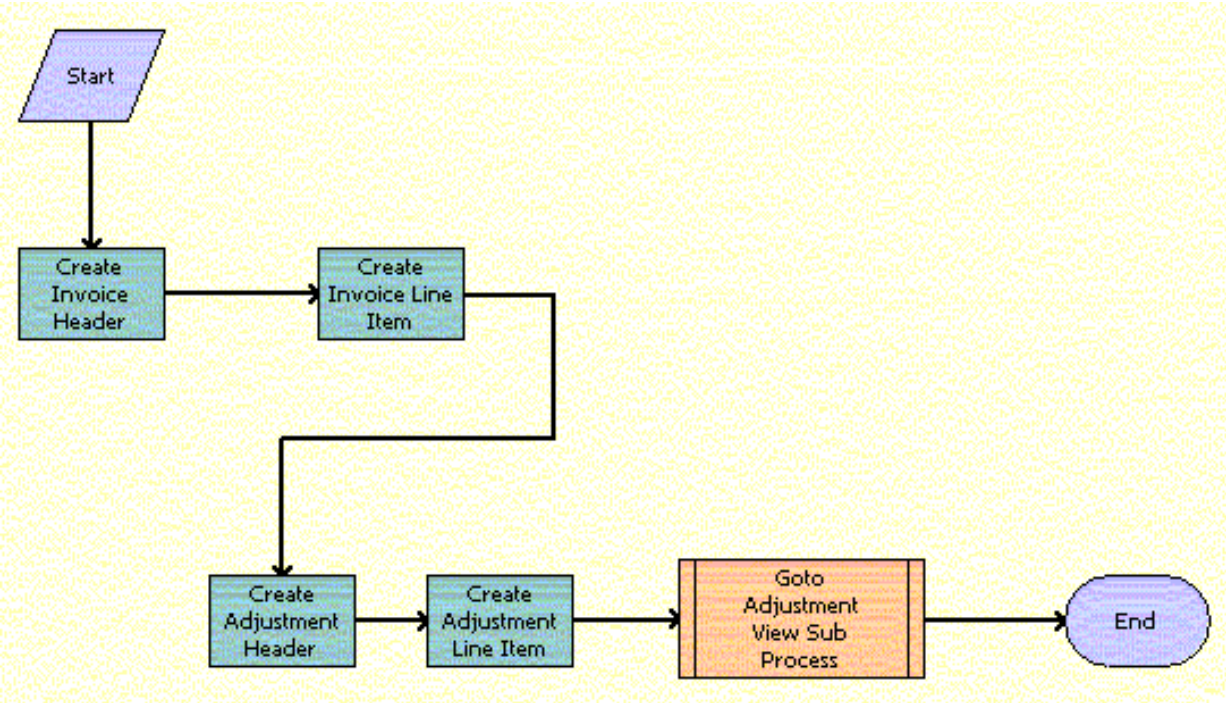
Workflow Step	Method Called	In Business Service
QueryInvoiceHeader	QueryInvoiceData	CMU Util UI Service

CMUItemChargeAdjustmentWF

This workflow creates appropriate adjustment request detail when a user adjusts bill item charges.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for item charges relating to a bill.



Workflow Description

This workflow performs the following actions:

1. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check if the bill exists in the Siebel database. If the bill does not exist, then it creates the bill header. For more information, see *CMUInvoiceQueryWF*.
2. **Create Invoice Line Item**. Calls the CMUItemChargeQueryWF workflow to check if the item charge exists in the Siebel database. If the item charge does not exist, then creates the bill line item. For more information, see *CMUItemChargeQueryWF*.
3. **Create Adjustment Header**. Creates the adjustment request header and populates some of the header fields.
4. **Create Adjustment Line Item**. Creates the adjustment request header, and defaults the Request Amount and the Approved Amount to 0. The Bill Number is populated with the Bill Number of the bill on which the adjustment is being made. The Adjustment Class is set to Billed for all adjustments made on the bill, whether at the item, event, or bill level.
5. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the adjustment view. For more information, see *CMU Adjustment View Sub Process*.

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 Invoice Header	CMUInvoiceDataTransfer	CMU Util UI Service
Create Invoice Line Item	CMUInvoiceDataTransfer	CMU Util UI Service
Create Adjustment Header	CMUAdjustmentDataTransfer	CMU Util UI Service

Workflow Step	Method Called	In Business Service
Create Adjustment Line Item	CMUAdjustmentDataTransfer	CMU Util UI Service

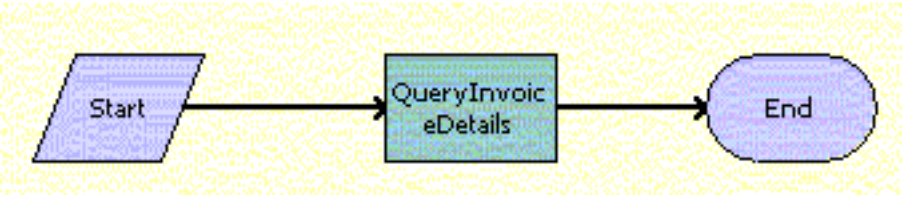
CMUItemChargeQueryWF

This workflow finds a particular item charge in the Siebel database.

The following shows this workflow.

The following workflows call this workflow as a subprocess:

- CMUItemChargeAdjustmentWF
- CMUEventDetailsAdjustmentWF
- CMUBalanceDetailsEventAdjustmentWF



Workflow Description

This workflow performs the following action:

- **QueryInvoiceDetails**. Checks if an item charge exists in the Siebel database.

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

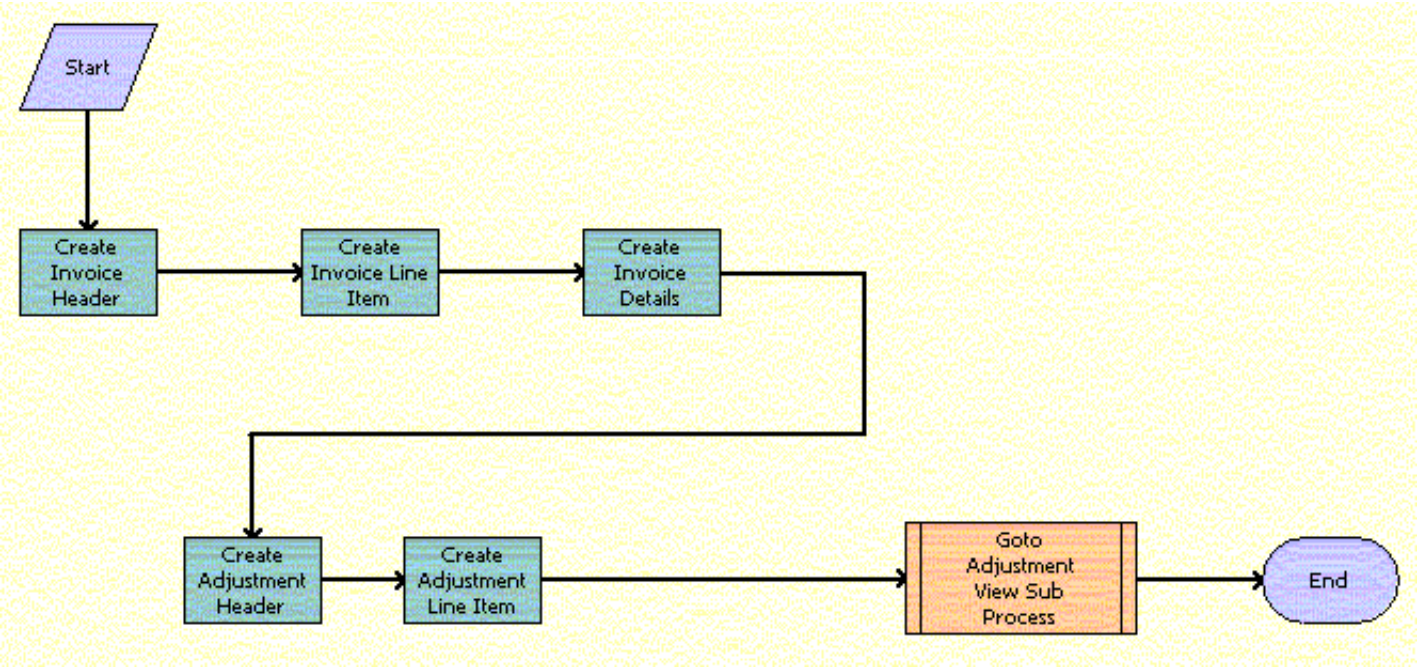
Workflow Step	Method Called	In Business Service
QueryInvoiceDetails	QueryInvoiceData	CMU Util UI Service

CMUEventDetailsAdjustmentWF

This workflow creates appropriate adjustment request detail when a user adjusts bill events.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for events relating to a bill.



Workflow Description

This workflow performs the following actions:

1. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check if the bill exists in the Siebel database. If the bill does not exist, then it creates the bill header. For more information, see *CMUInvoiceQueryWF*.
2. **Create Invoice Line Item**. Calls the CMUItemChargeQueryWF workflow to check if the item charge exists in the Siebel database. If the item charge does not exist, then creates the bill line item. For more information, see *CMUItemChargeQueryWF*.
3. **Create Invoice Details**. Calls the CMUEventDetailsQueryWF workflow to check if the bill event detail exists in the Siebel database. If the bill event detail does not exist, then creates the bill event detail. For more information, see *CMUEventDetailsQueryWF*.
4. **Create Adjustment Header**. Creates the adjustment request header and populates some of the header fields.
5. **Create Adjustment Line Item**. Creates the adjustment request line item, and defaults the Request Amount and the Approved Amount to 0.
6. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the adjustment view. For more information, see *CMU Adjustment View Sub Process*.

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 Invoice Header	CMUInvoiceDataTransfer	CMU Util UI Service
Create Invoice Line Item	CMUInvoiceDataTransfer	CMU Util UI Service
Create Invoice Details	CMUInvoiceDataTransfer	CMU Util UI Service

Workflow Step	Method Called	In Business Service
Create Adjustment Header	CMUAdjustmentDataTransfer	CMU Util UI Service
Create Adjustment Line Item	CMUAdjustmentDataTransfer	CMU Util UI Service

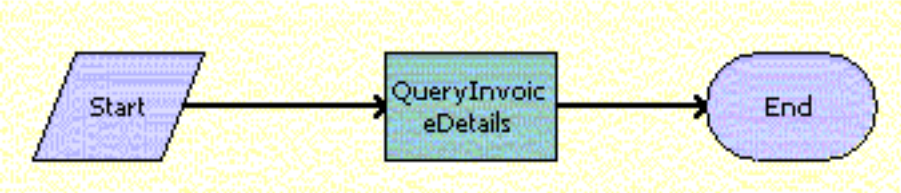
CMUEventDetailsQueryWF

This workflow finds a particular event in the Siebel database.

The following shows this workflow.

The following workflows call this workflow as a subprocess:

- CMUEventDetailsAdjustmentWF
- CMUBalanceDetailsEventAdjustmentWF



Workflow Description

This workflow performs the following action:

- **QueryInvoiceDetails**. Checks if an event exists in the Siebel database.

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

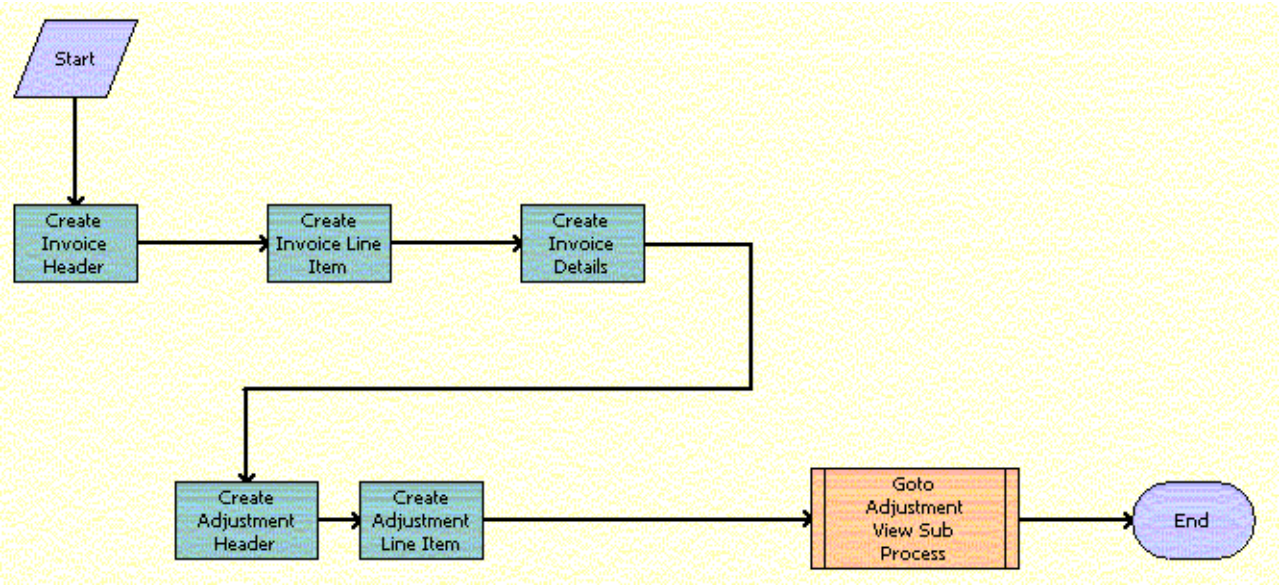
Workflow Step	Method Called	In Business Service
QueryInvoiceDetails	QueryInvoiceData	CMU Util UI Service

CMUBalanceDetailsEventAdjustmentWF

This workflow creates appropriate adjustment request detail when a user adjusts a resource balance.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for a resource balance total relating to events.



Workflow Description

This workflow performs the following actions:

1. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check if the bill exists in the Siebel database. If the bill does not exist, then it creates the bill header. For more information, see *CMUInvoiceQueryWF*.
2. **Create Invoice Line Item**. Calls the CMUItemChargeQueryWF workflow to check if the item charge exists in the Siebel database. If the item charge does not exist, then creates the bill line item. For more information, see *CMUItemChargeQueryWF*.
3. **Create Invoice Details**. Calls the CMUEventDetailsQueryWF workflow to check if the bill event detail exists in the Siebel database. If the bill event detail does not exist, then creates the bill event detail. For more information, see *CMUEventDetailsQueryWF*.
4. **Create Adjustment Header**. Creates the adjustment request header and populates some of the header fields.
5. **Create Adjustment Line Item**. Creates the adjustment request line item, and defaults the Request Value and the Approved Value to 0.
6. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the adjustment view. For more information, see *CMU Adjustment View Sub Process*.

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 Invoice Header	CMUInvoiceDataTransfer	CMU Util UI Service
Create Invoice Line Item	CMUInvoiceDataTransfer	CMU Util UI Service
Create Invoice Details	CMUInvoiceDataTransfer	CMU Util UI Service
Create Adjustment Header	CMUAdjustmentDataTransfer	CMU Util UI Service
Create Adjustment Line Item	CMUAdjustmentDataTransfer	CMU Util UI Service

Workflow Step	Method Called	In Business Service

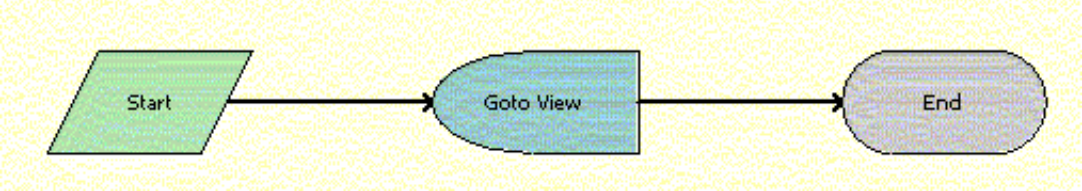
CMU Adjustment View Sub Process

This workflow navigates to the adjustment view.

The following shows this workflow.

The following workflows call this workflow as a subprocess:

- CMUInvoiceAdjustmentWF
- CMUItemChargeAdjustmentWF
- CMUEventDetailsAdjustmentWF
- CMUBalanceDetailsEventAdjustmentWF



Workflow Description

This workflow performs the following action:

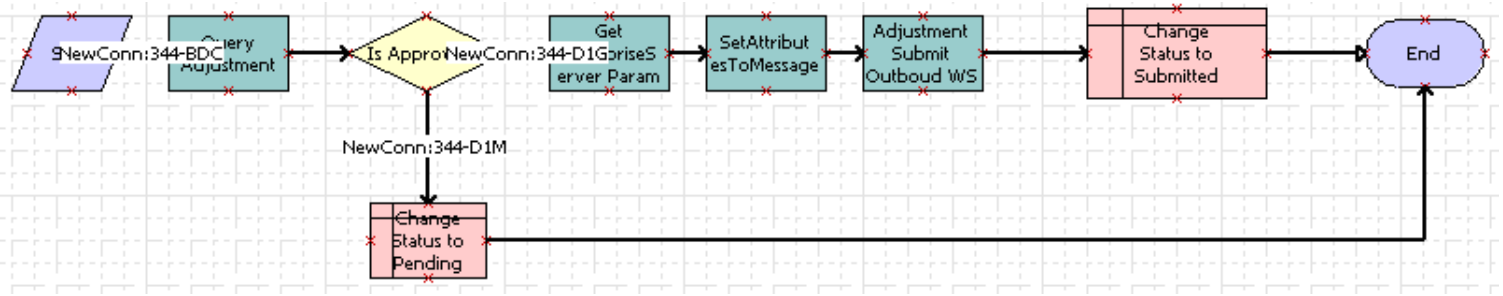
- **Goto View**. Navigates to the Adjustment view.

CMU SIA Submit Adjustment Request to External

This workflow submits an adjustment request to an external application by invoking an outbound Web service and changes the status of the adjustment header to Submitted.

The following shows this workflow.

A user initiates this workflow by clicking the Submit button on the Billing Adjustments screen.



Workflow Description

This workflow performs the following actions:

1. **Query Adjustment**. Queries the Siebel database for the adjustment request to be submitted to the external application. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
2. **Is Approved**. Checks whether the adjustment is approved in the Siebel application, and goes to the following steps:
    - **Change Status to Pending**. If the adjustment request is not approved, then it changes the status of the adjustment record to Pending and ends the workflow.
    - **Get EnterpriseServer Param**. If the adjustment request is approved, then it gets the parameters from the existing server, such as the enterprise server name, language, and locale, to add to the adjustment request message in the outbound Web service, and then it proceeds to the next step.
3. **SetAttributesToMessage**. Adds the enterprise server parameters to the adjustment request message.
4. **Adjustment Submit Outbound WS**. Calls the SWICreateAdjustment outbound Web service, which sends a request to create an adjustment in the Oracle Communications Billing and Revenue Management AQ (Advanced Queue).
5. **Change Status to Submitted**. Changes the status of the adjustment record to Submitted.

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

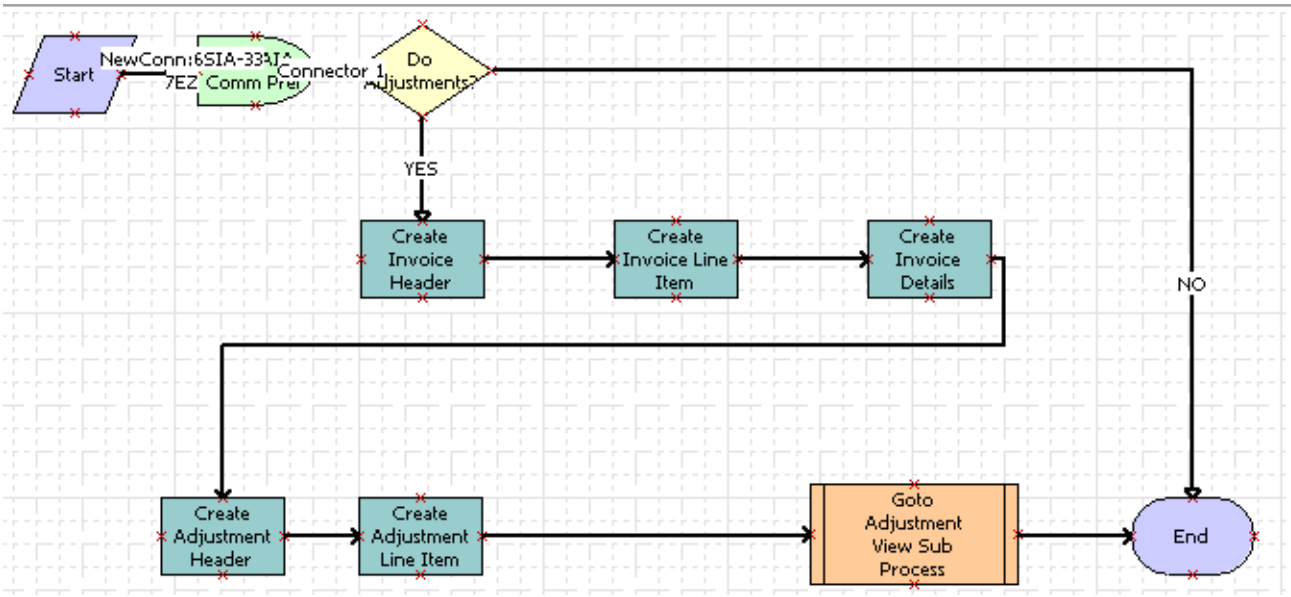
Workflow Step	Method Called	In Business Service
Query Adjustment	Query	EAI Siebel Adapter
Get EnterpriseServer Param	GetEnterpriseParameters	CMU External Integration Service
SetAttributesToMessage	SetAttributesToMessage	CMU External Integration Service
Adjustment Submit Outbound WS	CreateAdjustment	AdjustmentSiebelReqABCS

CMUUnbilledEventAdjustmentWF Workflow

This workflow processes an unbilled event adjustment.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for events relating to a bill.



Workflow Description

This workflow performs the following actions:

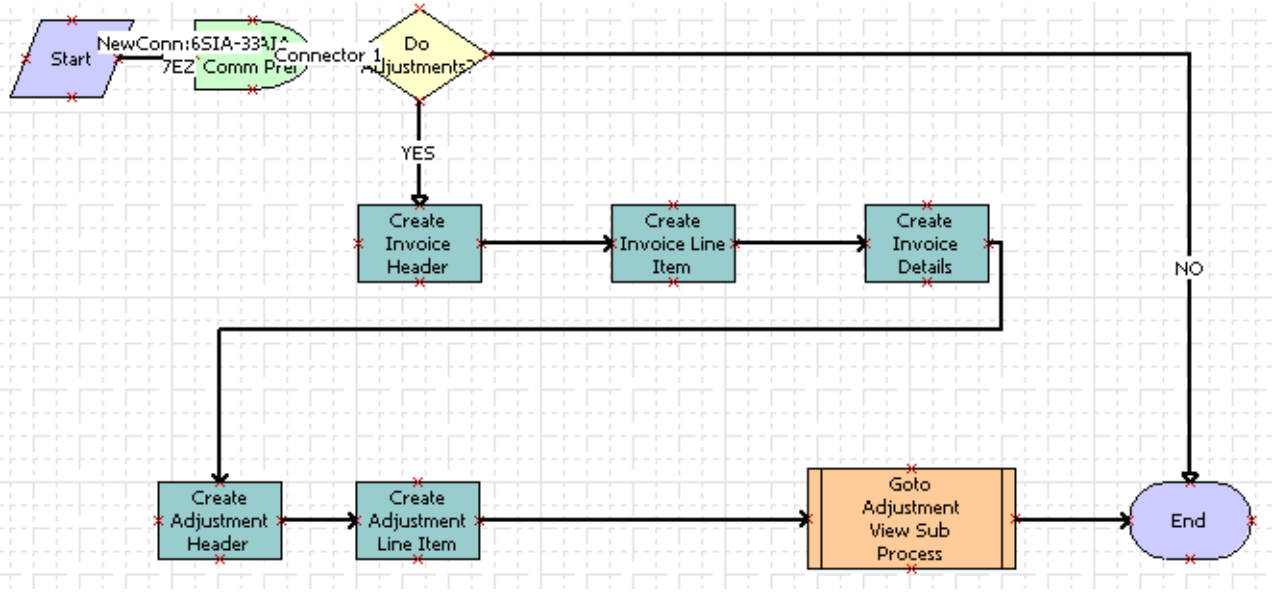
1. **Read AIA Comm Pref**. Reads the system preference to determine whether Oracle Application Integration Architecture is enabled.
2. **Do Adjustments?** Checks whether there are unbilled event adjustments to process. If there are, then proceeds with the workflow. If there are not, then stops the workflow.
3. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check whether the unbilled adjustment exists in the Siebel database. If the unbilled adjustment does not exist, then it creates the unbilled invoice header. For more information, see *CMUInvoiceQueryWF*.
4. **Create Invoice Line Item**. Calls the CMUItemChargeQueryWF workflow to check whether the unbilled item charge exists in the Siebel database. If the unbilled item charge does not exist, then it creates the unbilled invoice item. For more information, see *CMUItemChargeQueryWF*.
5. **Create Invoice Details**. Calls the CMUEventDetailsQueryWF workflow to check whether the unbilled item detail exists in the Siebel database. If the unbilled item detail does not exist, then it creates the unbilled invoice item details. For more information, see *CMUEventDetailsQueryWF*.
6. **Create Adjustment Header**. Creates the adjustment header for the unbilled event, and populates some of the header fields.
7. **Create Adjustment Line Item**. Creates the adjustment line item for the unbilled event. Defaults the Request Amount and the Approved Amount to 0. The Adjustment Class is set to Unbilled. The Bill Number remains blank in case of an unbilled adjustment.
8. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the Billing Adjustments screen, External Line Items view. For more information, see *CMU Adjustment View Sub Process*.

CMUUnbilledNonCurrencyEventAdjustmentWF Workflow

This workflow processes an unbilled noncurrency event adjustment.

The following shows this workflow.

A user initiates this workflow by clicking the Adjust button for a resource balance total relating to unbilled events.



Workflow Description

This workflow performs the following actions:

1. **Read AIA Comm Pref**. Reads the system preference to determine whether Oracle Application Integration Architecture is enabled.
2. **Do Adjustments?** Checks whether there are unbilled non-currency event adjustments to process. If there are, then proceeds with the workflow. If there are not, then stops the workflow.
3. **Create Invoice Header**. Calls the CMUInvoiceQueryWF workflow to check whether the unbilled adjustment exists in the Siebel database. If the unbilled adjustment does not exist, then this workflow step creates the unbilled invoice header. For more information, see *CMUInvoiceQueryWF*.
4. **Create Invoice Line Item**. Calls the CMUItemChargeQueryWF workflow to check whether the unbilled item charge exists in the Siebel database. If the unbilled item charge does not exist, then this workflow step creates the unbilled invoice item. For more information, see *CMUItemChargeQueryWF*.
5. **Create Invoice Details**. Calls the CMUEventDetailsQueryWF workflow to check whether the unbilled item detail exists in the Siebel database. If the unbilled item detail does not exist, then this workflow step creates the unbilled invoice item details. For more information, see *CMUEventDetailsQueryWF*.
6. **Create Adjustment Header**. Creates the adjustment header for the unbilled noncurrency event, and populates some of the header fields.
7. **Create Adjustment Line Item**. Creates the adjustment line item for the unbilled noncurrency event. Defaults the Request Value and Approved Value fields to 0.
8. **Goto Adjustment View Sub Process**. Calls the CMU Adjustment View Sub Process to navigate to the Billing Adjustments screen, External Line Items view. For more information, see *CMU Adjustment View Sub Process*.

Workflows to Manage Contacts, Accounts, and Payments

This group of workflows allows users to manage contacts, accounts, and payments. It consists of the following workflow processes and subprocess:

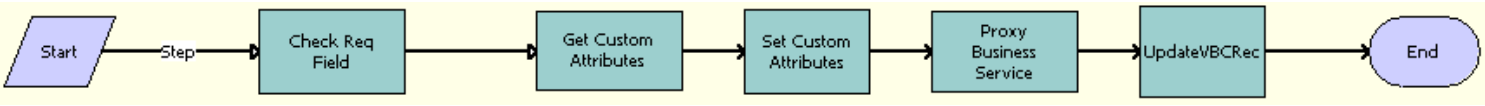
- *SWI External Account Integration Process Workflow*

- *SWI External Contact Integration Process Workflow*
- *SWI External Customer Req Integration Process Workflow*
- *SWI External Contact Req Integration Process Workflow*
- *SWI External Account Request Sync Process Workflow*
- *SWI External Contact Request Sync Process Workflow*
- *SWISendPaymentAuthorization Workflow*
- *SWISendCreditCheck Workflow*

SWI External Account Integration Process Workflow

This workflow is used to make outbound Web service calls to fetch data to populate the SWI Match Account VBC. It is called when the user clicks the Go button in the popup applet SWI Match Account List Applet.

The following shows the SWI External Account Integration Process workflow.



Workflow Description

This workflow performs the following actions:

1. Check Req Field. Checks if the required field values are entered in the popup applet SWI Match Account List Applet before sending a request to external application to query the account details.
2. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language and locale values, for the Siebel Server.
3. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message to make an outbound service call.
4. Proxy Business Service. Makes an outbound Web service call, validates the response message, and checks for service errors.
5. UpdateVBCRec. Updates the virtual business component, SWI Match Account VBC, to display the queried accounts in the popup applet SWI Match Account List Applet.

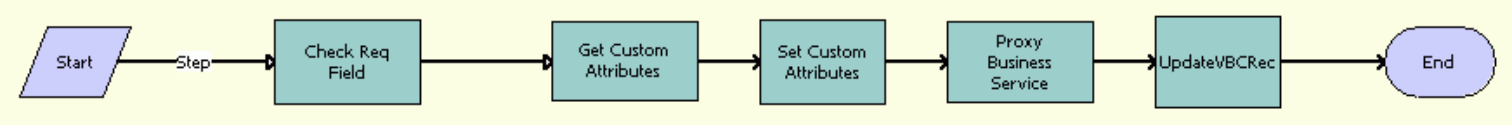
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Check Req Field	CheckRequiredFiled	SWI External Integration Service
Get Custom Attributes	GetEnterpriseParameters	SWI External Integration Service
Set Custom Attributes	SetAttributesToMessage	SWI External Integration Service
Proxy Business Service	InvokeAndValidateProxy	SWI External Integration Service
UpdateVBCRec	AddSiebelMessage	SWI External Integration Service

SWI External Contact Integration Process Workflow

This workflow is used to make outbound Web service calls to fetch data to populate the SWI Match Contact VBC. It is called when the user clicks the Go button in the popup applet SWI Match Contact List Applet.

The following shows the SWI External Contact Integration Process workflow.



Workflow Description

This workflow performs the following actions:

1. Check Req Field. Checks if the required field values are entered in the popup applet, SWI Match Contact List Applet, before sending a request to an external application to query the contact details.
2. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language and locale values, for the Siebel Server.
3. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message to make an outbound service call.
4. Proxy Business Service. Makes an outbound service call, validates the response message, and checks for service errors.
5. UpdateVBCRec. Updates the virtual business component, SWI Match Contact VBC, to display the queried accounts in the popup applet, SWI Match Contact List Applet.

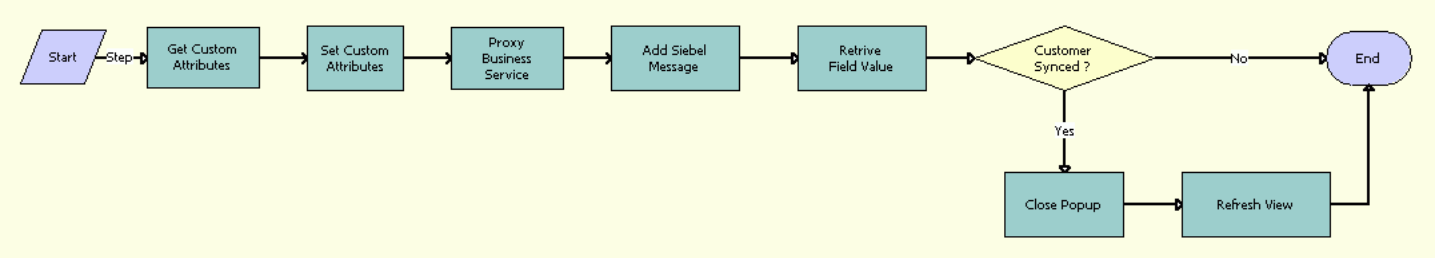
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Check Req Field	CheckRequiredFiled	SWI External Integration Service
Get Custom Attributes	GetEnterpriseParameters	SWI External Integration Service
Set Custom Attributes	SetAttributesToMessage	SWI External Integration Service
Proxy Business Service	InvokeAndValidateProxy	SWI External Integration Service
UpdateVBCRec	AddSiebelMessage	SWI External Integration Service

SWI External Customer Req Integration Process Workflow

This workflow is used to make an outbound Web service synchronize queried accounts from the external application. If an account is not present in Siebel CRM, then a new account will be created. This workflow is called when a user clicks the Fetch button on the SWI Match Account List Applet, after querying the account details from the external application.

The following shows the SWI External Customer Req Integration Process workflow.



Workflow Description

This workflow performs the following actions:

1. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language and locale values, for the Siebel Server.
2. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message that is sent to make an outbound service call.
3. Proxy Business Service. Makes an outbound service call, validates the response message, and checks for service errors.
4. Add Siebel Message. Updates the virtual business component, SWI Match Account VBC, to display the queried accounts in the popup applet, SWI Match Account List Applet.
5. Retrieve Field Value. Retrieves the Account Id from the external application to verify if the account successfully synchronized with the Siebel Business Application from Oracle.
6. Customer Synced? Checks if the Account Id returned from the previous step is NULL. If Account Id is NULL, then the account is not synchronized. If Account Id is not NULL, then the account is synchronized.
7. Close Popup. Closes the popup applet, SWI Match Account List Applet.
8. Refresh View. Queries the account business component with the Account Id returned by the outbound service call and refreshes the view to display only the synchronized account details in the Accounts view.

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

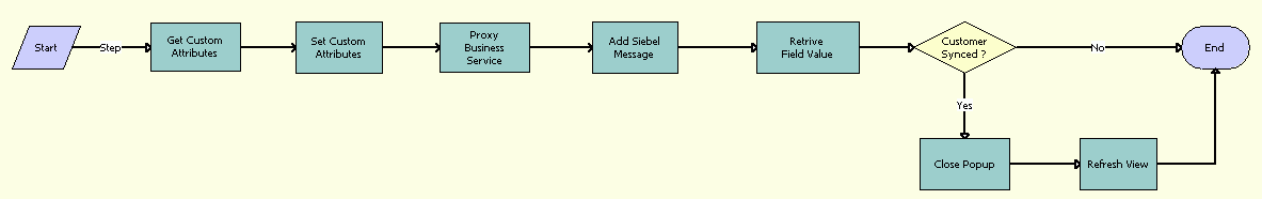
Workflow Step	Method Called	In Business Service
Get Custom Attributes	GetEnterpriseParameters	SWI External Integration Service
Set Custom Attributes	SetAttributesToMessage	SWI External Integration Service
Proxy Business Service	InvokeAndValidateProxy	SWI External Integration Service
Add Siebel Message	AddSiebelMessage	SWI External Integration Service

Workflow Step	Method Called	In Business Service
Retrieve Field Value	RetriveFiledValue	SWI External Integration Service
Close Popup	ClosePopup	SWI Util UI Service
Refresh View	RefreshView	SWI Util UI Service

SWI External Contact Req Integration Process Workflow

This workflow is used to make an outbound service synchronize the queried contacts from the external application. If a contact is not present in Siebel CRM, then a new contact will be created. This workflow is called when a user clicks the Fetch button on the SWI Match Contact List Applet, after querying the contact details from the external application.

The following shows the SWI External Contact Req Integration Process workflow.



Workflow Description

This workflow performs the following actions:

1. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language and locale values, for the Siebel Server.
2. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message to make an outbound service call.
3. Proxy Business Service. Makes an outbound service call, validates the response message, and checks for service errors.
4. Add Siebel Message. Updates the virtual business component, SWI Match Contact VBC, to display the queried accounts in the popup applet, SWI Match Contact List Applet.
5. Retrieve Field Value. Retrieves the Contact Id from the Oracle Application Integration Architecture response message to verify if the contact successfully synchronized with the Siebel application.
6. Customer Synced? Checks if the Contact Id returned from the previous step is NULL. If Contact Id is NULL, then the contact is not synchronized successfully. If Contact Id is not NULL, then the contact is synchronized successfully.
7. Close Popup. Closes the popup applet, SWI Match Contact List Applet.
8. Refresh View. Queries the Account business component with the Contact Id that is returned by the external application, then refreshes the view to display only the synchronized account details in the Accounts view.

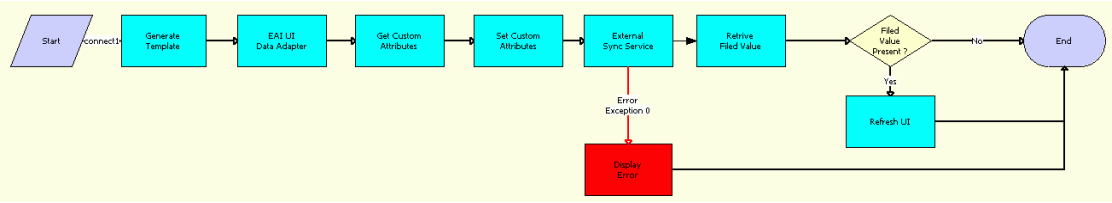
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
Get Custom Attributes	GetEnterpriseParameters	SWI External Integration Service
Set Custom Attributes	SetAttributesToMessage	SWI External Integration Service
Proxy Business Service	InvokeAndValidateProxy	SWI External Integration Service
Add Siebel Message	AddSiebelMessage	SWI External Integration Service
Retrieve Field Value	RetriveFiledValue	SWI External Integration Service
Close Popup	ClosePopup	SWI Util UI Service
Refresh View	RefreshView	SWI Util UI Service

SWI External Account Request Sync Process Workflow

This workflow synchronizes the account from the external application with the Siebel application. It is called when the user selects the Fetch menu item from the SIS Account List Applet.

The following shows the SWI External Account Request Sync Process workflow.



Workflow Description

This workflow performs the following actions:

1. Generate Template. Generates a template to query the contact details, which contain only the required fields, such as Account Id to make an outbound Web service call.
2. EAI UI Data Adapter. Fills the template generated in the previous step with the account information that is used to make an outbound Web service call to synchronize the account with the Siebel application. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
3. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language, and locale values, for the Siebel Server.
4. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message to make an outbound Web service call.
5. External Sync Service. Makes an outbound Web service call to synchronize the account details from the external application with the Siebel application.

6. Display Error. Retrieves the error message, if there is any during the outbound Web service call, and displays it in the Siebel application.
7. Retrieve Field Value. Retrieves the Account Id from the Web service response message to verify if the account successfully synchronized with the Siebel application.
8. Field Value Present. Checks if the Account Id returned from the previous step is NULL. If the Account Id is NULL, then the account is not synchronized. If the Account Id is not NULL, then the account is synchronized.
9. Refresh UI. If the account synchronized successfully, then this step refreshes the Account view so that the synchronized account is included in the Siebel application.

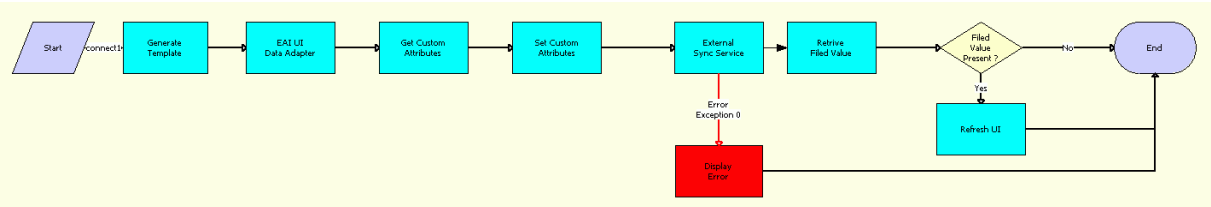
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
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
External Sync Service	CustomerPartyIOFetchAccount	FetchAccountSiebelReqABCSImplService
Display Error	CheckAndSetError	SWI External Integration Service
Retrieve Field Value	RetriveFiledValue	SWI External Integration Service
Refresh UI	RefreshCurrentApplet	FINS Teller UI Navigation

SWI External Contact Request Sync Process Workflow

This workflow synchronizes a contact from an external application with the Siebel application. It is called when the user selects the Fetch menu item in the Contact List applet.

The following shows the SWI External Contact Request Sync Process workflow.



Workflow Description

This workflow performs the following actions:

1. Generate Template. Generates a template to query the contact details, which contain only the required fields to make an outbound Web service call, such as Contact Id.
2. EAI UI Data Adapter. Fills the template generated in the previous step with the contact information used to make an outbound Web service call to synchronize the contact with the Siebel application. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
3. Get Custom Attributes. Gets the details of the Siebel Enterprise Server, such as the language and locale values, to be used by the Siebel Server.
4. Set Custom Attributes. Sets the details of the Siebel Enterprise Server, such as the language and locale values, in the request message to make an outbound Web service call.
5. External Sync Service. Makes an outbound Web service call to synchronize the account details from the external application with the Siebel application.
6. Display Error. Retrieves the error message from the Web service call, if any, and displays it in the Siebel application.
7. Retrieve Field Value. Retrieves the Contact Id from the Web service call response message to determine whether the contact successfully synchronized with the Siebel application.
8. Field Value Present. Checks if the Contact Id returned from the previous step is NULL. If yes, then the contact is not synchronized. If no, then the contact is synchronized.
9. Refresh UI. If the Contact is synchronized, then this step refreshes the Contact view so the synchronized contact appears in the Siebel client.

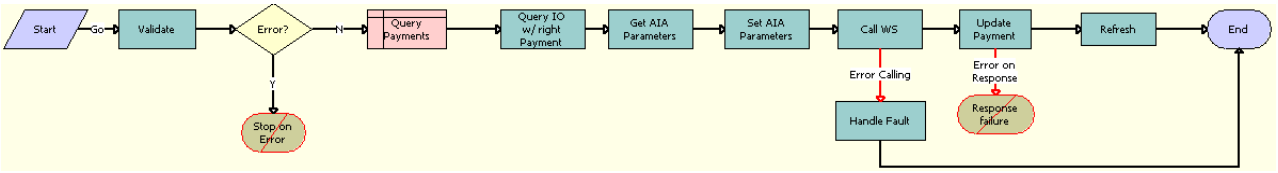
Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Method Called	In Business Service
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
External Sync Service	CustomerPartyIOFetchAccount	FetchAccountSiebelReqABCSImplService
Display Error	CheckAndSetError	SWI External Integration Service
Retrieve Field Value	RetriveFiledValue	SWI External Integration Service
Refresh UI	RefreshCurrentApplet	FINS Teller UI Navigation

SWISendPaymentAuthorization Workflow

This workflow checks if this payment record is valid for the customer. The operator creates a new payment record as a credit card payment and fills all requested fields. This workflow is called when a user clicks the Authorize button.

The following shows the SWISendPaymentAuthorization workflow.



Workflow Description

This workflow performs the following actions:

1. Validate. Validates the input values.
2. Error. Checks whether the input is absent or invalid. If the input is absent or invalid, then the workflow proceeds to the Stop on Error step.
3. Query Payments. Queries the payment details from the Payments business component.
4. Query IO w/ right Payment. Queries the Siebel database for the correct set of payment details and prepares the Siebel XML file for transmission. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
5. Get AIA Parameters. Gets the Siebel Enterprise Server details and other parameters.
6. Set AIA Parameters. Formats the parameters into Siebel message format.
7. Call WS. Calls the outbound Web service and sends the payload.
8. Handle Fault. If an error occurs in the prior step, then this step displays an error message.
9. Update Payments. Updates the payment details. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then any field of the type DTYPE_UTCDATETIME in the payload must be in UTCCanonical format. While writing these fields into the business component, these fields are converted to the locale-specific date and time.
10. Refresh. Refreshes the applet so the synchronized information appears in the Siebel application.

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

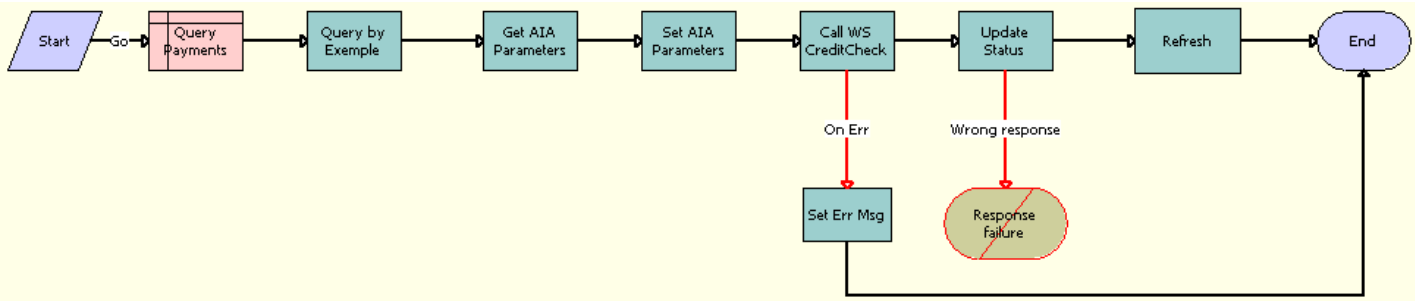
Workflow Step	Method Called	In Business Service
Validate	Validate	FINS Validator
Query IO w/ right Payment	Query	EAI Siebel Adapter
Get AIA Parameters	GetEnterpriseParameters	SWI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS	PaymentAuthorization	PaymentAuthorizationSalesOrderSiebelReqABCSImplService

Workflow Step	Method Called	In Business Service
Handle Fault	CheckAndSetError	SWI External Integration Service
Update Payments	Upsert	EAI Siebel Adapter
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation

SWISendCreditCheck Workflow

This workflow determines whether the Purchase Order method is a valid payment. It is called when the user clicks the Credit Check button.

The following shows the SWISendCreditCheck workflow.



Workflow Description

This workflow performs the following actions:

1. Query Payments. Queries payment details from the Payments business component.
2. Query By Example. Runs a query to obtain the correct set of payment details. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then the query returns data for any field of the type DTYPE_UTCDATETIME in UTC Canonical format.
3. Get AIA Parameters. Gets Oracle's Siebel Enterprise Server details and other parameters.
4. Set AIA Parameters. Formats the parameters into Siebel message format.
5. Call WS Credit Check. Calls the outbound Web service and sends the payload.
6. Set Err Msg. If an error occurs in the previous step, then this step displays an error message.
7. Update Status. Updates credit check details received. Derives the value of the UTCCanonical input parameter for this step from the UTCCanonical process property. The default value of this property is N. If the value passed is Y, then any field of the type DTYPE_UTCDATETIME in the payload must be in UTCCanonical format. While writing these fields into the business component, these fields are converted to the locale-specific date and time.
8. Refresh. This step refreshes the applet so the synchronized information appears in the Siebel client.

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 Example	Query	EAI Siebel Adapter
Get AIA Parameters	GetEnterpriseParameters	SWI External Integration Service
Set AIA Parameters	SetAttributesToMessage	SWI External Integration Service
Call WS Credit Check	CreditCheck	CreditCheckSalesOrderSiebelReqABCSImplService
Set Err Msg	CheckAndSetError	SWI External Integration Service
Update Status	Upsert	EAI Siebel Adapter
Refresh	RefreshCurrentApplet	FINS Teller UI Navigation