Application Guide Self Service Manager for Communications

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Overview

Introduction to Self Service Manager

Self Service Manager enables customers of communications service providers to manage every aspect of their service relationship online. From a single convenient interface, customers can easily activate and manage subscriptions and order new products and services. Business customers are able to complete these activities for individual employees, as well as company departments and divisions or across their entire organization by navigating their billing or organizational structure hierarchies and selecting bulk operations.

The Self Service Manager application is built on the Siebel eXtensible Modular Architecture (XMATM). XMA is a J2EE platform developed for rapid deployment of industry specific Customer Self service and e-Billing applications. XMA offers multichannel presentation, configurable business logic, real-time and batch integration, several data repositories, and system management tools.

Siebel's Customer Self service Solution

Customer Self service (CSS) gives customers direct control over the full range of account-related tasks, from finding information to executing transactions, all independent of the device used to engage with the payer. It empowers customers to perform functions that might otherwise go through a call center. CSS combines electronic presentment and payment (EPP), transaction processing, knowledge management, personalization and application integration technologies to create an integrated, natural and preferred starting point for all customer service issues.

Contact centers provide the key to unlocking potential benefits through self service. Analyzing contact center statistics shows that the vast majority – often 60-90 percent – of customer service issues related to a customer's account. For this reason, Siebel's CSS product solutions provide direct access to detailed account information, and also interface with complementary front and back-office systems to provide access to a variety of account-related services.

Problem Statement

Communications business customers (B2B) manage from tens to tens of thousands of plans, activations, and profiles for the many services that they subscribe to. Similarly, individual consumers (B2C) and consumers with family plans also must be able to manage and change their services as well.

Communications customers typically change their service characteristics on a line by line basis, which makes the tasks difficult and time consuming to complete. Communications companies need to support hundreds of thousands to millions of registered users making changes to their accounts, services, and features.

The undesired result of these requirements is:

- 1. Increased call volume to customer care centers.
- 2. Poor end customer satisfaction, which negatively impacts retention and new customer acquisition.

Siebel develops an online self service solution optimized for Communications clients' business and consumer customers to provide an easy to use online self service tools for managing rate plans, features, activations, and profiles

Application Benefits

Self Service Manager provides the following benefits to the business:

- 1. Reduce Costs
 - Reduced call volume to customer care centers.
 - Seamless integration with the client's legacy back-end systems.
- 3. Increase Customer Retention
 - Increase customer satisfaction
 - Barrier to Churn:
 - B2B Hierarchies are loaded.
 - Historical usage patterns and costs are loaded.
 - Users are trained.
- 4. Increase Revenue
 - Attract new customers with competitive differentiator.
 - Single service management environment for B2C, B2E, and B2B customers
 - Incentive to acquire greater percentage of customers communications service purchases because customer can use Self Service Manager as their preferred tool for consolidated management of their communications services.
 - Platform on which to up-sell new value added services by offering stepped pricing to a customer based on how much of Self Service Manager's functionality is being used as well as related capability such as an integrated eCommerce catalog and shopping cart application, Rate Plan Advisor (RPA) and Customer Service Representative (CSR) Manager

The application provides the following benefits to customers.

1. Reduce Costs:

Decreases the time it takes to manage, add, remove, or modify one or more services simultaneously through a consolidated view.

5. Confirms Appropriateness of Services and Usage:

Simplifies understanding how customers are using communications services by viewing and managing services in a consolidated view. In addition to giving them comfort that they are reducing service errors, they can consolidate and manage their services to be the most appropriate for their usage.

About Customer Self-Service and Siebel Tools

Siebel's Self-Service for Communications includes every application that communications service providers need to enable a complete online customer-self service experience at their website. The suite includes software applications for:

- e-Billing and Payment
- Service and Order Management
- Point-of-Sale
- Reporting and Analytics
- Rate Plan Advice

Siebel's Self-Service applications for the telecommunications industry combine Siebel's unrivaled Customer Self-Service and e-Billing software suite with its extensive industry domain expertise. The packaged, out-of-the-box applications are tailored to solve communications service providers' distinct business problems and to meet communications industry-specific process requirements.

Siebel's Self-Service for Communications includes:

Communications Billing Manager

Communication Billing Manager is a complete e-billing application for communications service providers that gives business and consumer customers valuable and convenient access to their communications bills along with the ability to easily make online payments.

Communications Self-Service Manager

Communications Self-Service Manager enables customers of communications service providers to manage every aspect of their service relationship online. From a single convenient interface, customers can easily activate and manage subscriptions, change rate plans and features, and modify subscriber profile settings. Business customers are able to complete these activities for individual employees, as well as company departments and divisions, across their entire organization.

Communication Analytics Manager

Communication Analytics Manager is a reporting solution for business customers that empowers both individual employees and business managers to analyze and understand their communications costs and usage by investigating and identifying trends and patterns across multiple views of their own unique organization.

Rate Plan Advisor

Rate Plan Advisor is a web-based application that recommends the ideal rate plan for wireless subscribers in real-time. Individual consumers as well as large businesses can analyze their actual historical voice/mobile/data usage, find the best-fit rate plans, and compare the features offered by those plans. With its intuitive wizard user interface, Rate Plan Advisor quickly guides end-customers or customer service representatives through the entire analysis process. In addition, a service provider's customer care and marketing groups can also use Rate Plan Advisor to identify pre-churn subscribers, simulate new rate plans, and run predictive analytics.

e-Service Applications

Whether customers are visiting an organization's web site, communicating by email, or seeking to chat real-time with a CSR, Siebel e-Service Applications ensure the ability to deliver knowledgeable and exceptional customer service. Driven by sophisticated intelligence engines and automation technologies, these solutions replicate the knowledge of an organization's most experienced personnel, providing timely, accurate responses to customer inquiries.

e-Mail Manager

e-Mail Manager is an automated e-mail response management system that determines the intent of the incoming e-mail messages and composes personalized answers that can be automatically dispatched to customers or routed to service agents for a single-click review.

Intelligent Assistant

Intelligent Assistant is an advanced natural language-based self service application that empowers customers, prospects and customer service representatives (CSRs) to leverage all of an organization's knowledge assets -web pages, account data, documents, databases, existing legacy data sources, and knowledge bases -to quickly and accurately find answers to their specific billing, account, product and service questions.

Extended Customer Service Modules

Extended Customer Service Modules augment its core online self--service and e-Billing capabilities and extend them to your customers' other preferred service channels. This enables carriers to provide more effective and efficient service regardless of what channel your customers choose.

Print Manager

Print Manager is a complete solution for data consolidation, visual statement formatting and design, and print output generation that significantly reduces the cost and complexity of producing paper bills, invoices and statements. Combined electronic and print output solution handily solves the challenge of account consolidation avoiding the need to alter complex back-end legacy systems to present a consolidated account view online or on paper.

Syndication Manager

Syndication Manager is an account content distribution system that handles all the complexities of securely distributing summary account information to any endpoint, while also enabling customers to go back to the billing organization's website to take advantage of more comprehensive self service capabilities.

CSR Manager

CSR Manager enables customer service representatives (CSR) to access critical account data and service-related information and capabilities to effectively service both online and off line customers.

CSR Manager is a browser-based application that couples traditional customer-facing online self service capabilities with CSR-specific features including case management, facilitating better service at the point of customer contact.

Marketing Manager

Marketing Manager is a personalization, campaign and content management solution that weaves personalized marketing and customer service messages based on specific account information throughout the customer self service and e-billing experience. The browser-based application facilitates collaboration between internal marketing and customer service departments as they create, deploy and track the performance of campaigns.

Business Processes and Application Logic

Overview

Self Service Manager is designed specifically for communication companies and has been optimized to quickly return summary information on large volumes of data. The user can easily change the scope of their service requests from a single line to all lines within a consolidated billing environment by graphically changing their position within their hierarchy, sort on any column displayed, and present a printer friendly transaction confirmation for the customers' records. Every service request is assigned a tracking number, which allows the customer to monitor the status online.

The objective of the Self Service Manager application is to provide the customer self service infrastructure necessary to submit a change to a current account, manage telephone service, and manage subscriber profiles, as a stand-alone application or as a component within Siebel's Self Service for Communications.

The main features of Self Service Manager are:

- Manage Account Provides a customer with the ability to change rate plan, add or remove features, change device associated with a phone number (change DSN, device serial number), change telephone number, port a telephone number from another carrier.
- Manage Service Provides a customer with the ability to activate or deactivate a telephone number, suspend or resume service, change voice mail password, and change subscriber profile information.
- **Hierarchy Scope Selection** A B2B customer may select one line, all the lines within a group or cost center from an organizational structure hierarchy, or all lines within an account from a billing hierarchy to determine the scope of the self service action.
- Individual and Bulk Operations A single line customer such as B2C consumer and B2E business single line customers are sent directly to take action on their individual service, plan, features, activation or profiles since there is only one telephone number associated with the account. B2C Family plan accounts or B2B customers may select between 1 and n services service agreements on which to perform the same service agreement.

What's New in Version 5.01?

This is the GA release for Self Service Manager. For a more detailed break down of what alternate paths are in what release, please refer to the RTM.

General

1. Set Hierarchy Position

The ability to search the hierarchy structure in order to find a node to "set position"

2. Printer Friendly

Manage Account

1. Add and delete features to the existing plan

Provides ability for the administrator to change rate plan features in bulk (alternate path).

2. Change Device (Device Serial Number, also known as ESN)

Enables the business user to change the device associated with a service agreement either in bulk or individually. This transaction is performed by changing the device serial number associated with the service agreement.

3. Port Number

Provides the ability for a business user to port numbers in bulk and individually. Port number enables the user to replace an existing number with a new number from different service provider.

Manage Service

1. Activate Service

Enables the business user to activate service agreements in bulk or individually.

2. Suspend Service

Enables the business user to suspend an individual service agreement and specify an effective date

3. Resume Service

Enables the business user to resume service for individual service agreements or in bulk

4. Deactivate Number

Enables customer service representatives to deactivate service.

Other

1. Self-Service Overview

Self Service Manager overview screen displays 'dashboard' metrics and provides quick links to self-service functions.

2. Trouble Report

Enables customer to submit trouble reports for any service related issues.

Hierarchy Overview

This section is intended to give a high level overview of hierarchy and to define how it impacts Self Service Manager.

The hierarchy navigation enables business users pick from different named hierarchy structures, navigate their tree structure, and select a node position in order to filter the service agreements displayed in the Self Service Manager service request screens.

There are two types of hierarchies.

- **Billing Hierarchy:** Billing hierarchies are created automatically at the time the bill is loaded and includes only information from within the bill. For instance, a simple billing hierarchy might include only two levels: account (an account defines the payment responsibility for service usage) and service agreement (defined by a phone number). A complex billing hierarchy could contain an unlimited number of accounts and sub-accounts.
- Non-Billing Hierarchy: A user can create an unlimited number of non-billing hierarchies in order to organize usage and charges to consolidate payments or manage usage and usage charges in their organization.

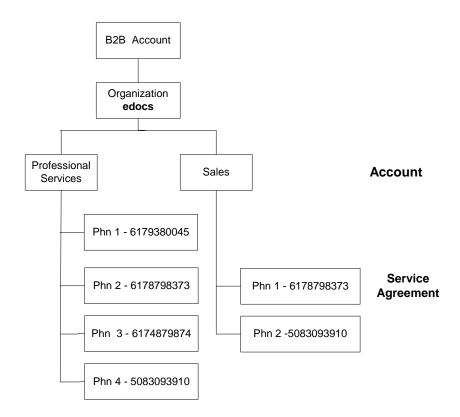


Figure 0-1 B2B Hierarchy Model

Enabled Hierarchy Functionality

The existence of these hierarchies enables the following Self Service Manager functionality (explained in more detail in the "Set Hierarchy Position" use case.

- Navigate Hierarchy: The business user expands tree nodes to navigates through the hierarchy structure to define users' scope. Depending on which hierarchy is selected and at what node the user's hierarchy context position is, the system displays only service agreements associated with the user's node and below in the tree structure.
- **Search Hierarchy**: Enables the user to search for folders, accounts, or phone numbers in an organizational hierarchy.
- **Set Position**: Users perform this action to set their context and limit the service agreements displayed in any of the Self Service Manager service transaction screens.

3 Site Web Flows

The site web flows in this chapter describe the essential interaction between the user and the system. The system is based on Self Service Manager and a customizable set of screens. The User Interface (UI) consists of a set of screens and navigation elements with interfaces (APIs) to Self Service Manager platform functions. The user presentation is driven by a set of HTML templates (Tiles). The navigation and control is driven through a standard Java framework (Struts).

Each use case specifies a set of activities performed by a user, or other type of actor, to complete a task. Use cases describe the flow of contingent actions the user takes.

There may be many possible paths through a site web flow:

- The Main Path This describes the successful completion of the use case without encountering any exceptional conditions.
- **Alternate Paths** These describe one or more related paths through the use case (for example, add, edit and delete) that are considered not part of the common flow of the use-case.
- **Exception paths** These describe exception conditions and how they are handled; [E1], [E2], [E3]...
- **Business Rules** These describe logical decisions that determine the behavior are listed separately, where appropriate; [B1], [B2], [B3]...

A use case may also interact with external systems, which are systems that are outside the boundary of the Self Service Manager implementation.

Actors

ACTOR	EXAMPLE ROLES	Notes
Administrator	Corporate Communications Manager View, Pay, Order, Approve, Manage hierarchy & Modify company profile	A communications business customer responsible for determining if the company is receiving the proper service from the provider. Also responsible for managing and administrating their organization accounts, telecommunications device, rate plans and services.
B2B - Business User	View, Pay & Order	A business customer responsible for managing accounts and ordering telecommunications device, rate plans and services.

ACTOR	EXAMPLE ROLES	Notes
B2B - Corporate Liable	View Only	A business customer uses the B2B application to view their accounts and/or telecommunications devices.
B2B - Subscriber	View & Pay	A business customer uses the B2B application to view and pay their accounts.
B2E - Subscriber	View, Pay and Order	A business customer uses the B2B application to view their accounts and telecommunications devices and provide payment when necessary.
User	CSR	Customer Service Representative

General Use Cases

There are functions that appear on many pages throughout the Self Service Manager application. The following use cases detail common functionality that is applied to one or more pages.

This section consists of the following use case sub-flows:

- Cancel System cancels the process on a series of one or more pages.
- **Display Error Message** System re-displays page with an error message.
- Page through data in a table User pages through large amounts of data.
- Sort data in a table User sorts data by a single column header.
- **Printer Friendly** Print confirmation page
- **Set Hierarchy Position** Navigate tree hierarchy structure and select a position to set the scope of service agreements that are displayed for selection at the beginning of each Self Service Manager transaction.
- Search & Select Service Agreement This generalized use case describes how the list of service agreements are displayed for selection at the beginning of all Self Service Manager use cases and how the user can filter this list and select one or more service agreements.

Cancel

Name:	Cancel
Brief Description:	Describes the navigational experience when a Cancel action is selected.
Main Path:	User selects a Cancel action.
	System returns User to first page of current sequence of pages.[E1]
	3. System clears any data or selections made by the User.

	4. Use Case Ends.	
Alternate Paths:	None	
Exception Paths:	[E1] User encounters a system error: 1. System invokes Error Message use case.	
Business Rules:	None	
Notes:	Invoking the cancel action returns the first sequence of the use case.	

Back

Name:	Back
Brief Description:	Describes the navigational experience when a back action is selected. Back buttons are only present on select screens. They enable the user to return to the previous screen to make changes and then proceed.
Main Path:	1. User selects a <i>back</i> action.
	2. System returns User to the previous page [E1]
	Data previously displayed on the page is displayed.
	4. User optionally performs any function available on the screen
	5. Use Case Ends.
Alternate Paths:	None
Exception Paths:	[E1] User encounters a system error: 1. System invokes Error Message use case.
Business Rules:	None
Notes:	None

Display Error Message

Name:	Display Error Message	
Brief Description:	System redisplays page with an error message.	
Main Path:	User performs an action that cannot be completed.	
	System determines required error actions.	
	3. System reads error message text from a configuration file.	
	4. System updates information on page as necessary.	
	System re-displays page with error message (displayed in Red) below navigational bars.	
	6. Use Case Ends.	
Alternate Paths:	None	
Exception Paths:	None	
Business Rules:	None	
Notes:	None	

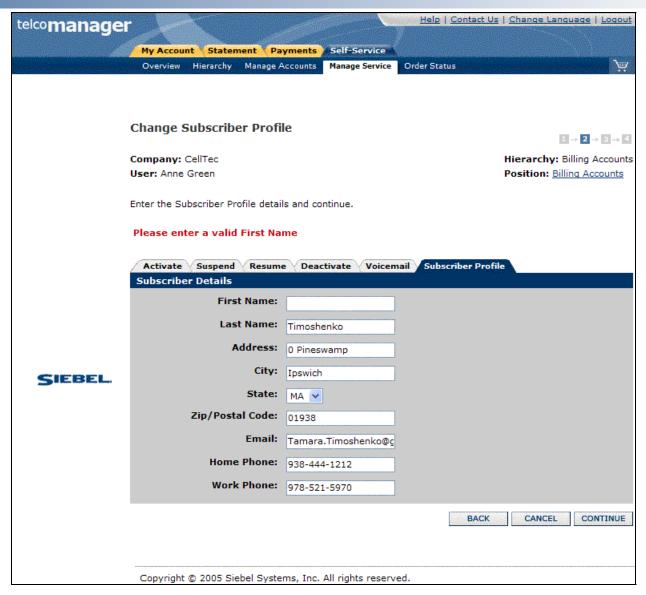


Figure 0-1 System Error Screen

Paging

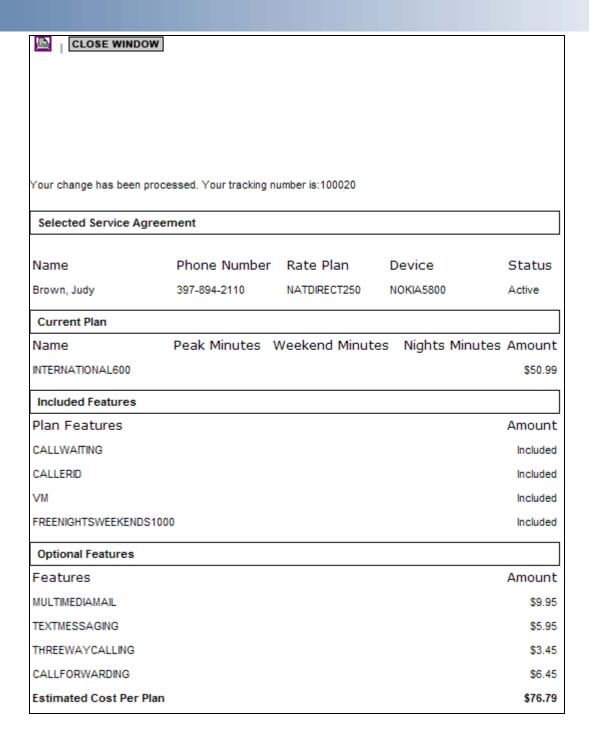
Name:	Page through data in a table
Brief Description:	Large amounts of data are divided into page sets and each page set is presented on a single view.
Main Path:	User selects single forward arrow. [A1]
	2. System returns the next page of data. [E1]
	3. User selects single backward arrow. [A1]
	4. System returns the previous page of data. [E1]
	5. User selects double forward arrow. [A1]
	6. System returns the last page of data. [E1]
	7. User selects double backward arrow [A1]
	8. System returns the first page of data. [E1]
	9. Use case ends.
Alternate Paths:	[A1] User enters a number in the input box.
	a) System returns the data on the inputted page number.
Exception Paths:	[E1] User encounters a system error:
	System invokes Error Message use case.
Business Rules:	[B1] For data set that is divided into two or more pages, page must display number of the current page and total number of pages, e.g., page 3 of 5. If the data set results to one page, page numbering is suppressed.
	[B2] Report Total line is always displayed at the bottom of the table on each page.
	[B3] The number of lines displayed on each page is configurable and will be set initially to 10.
Notes:	None

Sort Data in a Table

Name:	Sort data in a table
Brief Description:	Enables user to sort the data in a specific table.
Main Path:	User selects a sorting link (a column header that supports sorting)
	System sorts the data in the table by the selected column in ascending order.
	3. User selects the same sorting link.
	System sorts the data in the table by the selected column in descending order.
	5. User selects a different sorting link.
	System sorts the data in the table in by the newly selected column in ascending order.
Alternate Paths:	None
Exception Paths:	[E1] User encounters a system error:
	System invokes Error Message use case.
Business Rules:	None
Notes:	If there are enough line items displayed to cause paging to be enabled, the sort will occur over all data, not just the data currently displayed on the page.

Printer Friendly Version

Name:	Printer Friendly Version
Brief Description:	A printer friendly version of the page is generated.
Main Path:	 User selects Printer Friendly action. System opens a new window and displays a printer friendly version of the current view. [A1] User clicks the Print link. System displays a print dialog box to the user. User selects the print settings in the print dialog and submits the print request. [A2]
	request. [A2] 6. User closes the printer friendly version and returns to the application. 7. Use Case Ends .
Alternate Paths:	User closes the printer friendly view and returns to the original view System does not send anything to the printer and leaves the user viewing the application.
	[A2] User closes the print dialog1. System does not send anything to the printer and leaves the user viewing the printer friendly page.
Exception Paths:	None
Business Rules:	None
Notes:	Uses standard browser printer function. Printer friendly functionality is available on all confirmation screens. Printer friendly pages should not have any of the navigation information. The information that is presently shown to the user will be printed.



Set Hierarchy Position

The hierarchy use cases cover the requirements to navigate and search the billing and non-billing, hierarchies. The hierarchy functions described in this section are capabilities of the hierarchy module used in conjunction with Self Service Manager. All other hierarchy functions are described in the hierarchy application guide.

Name: Set Hierarchy Position

Brief Description:	Enables the user to select a hierarchy, navigates its nodes and set a new position.
	Rationale: Selecting this position sets the scope of what service agreements are displayed for selection at the beginning of each Self Service Manager transaction. This list can be further filtered at the beginning of each of these Self Service Manager transactions.
Actors:	Admin, Manager
Entry Points	Hierarchy Tab Hierarchy and hierarchy position hyperlink on the top right of every screen.

Main Path:

- 1. Initial Display
- a) If a hierarchy and hierarchy position has been previously selected or if the user has access to only one hierarchy
 - That hierarchy's first level is expanded and displayed in the left pane.
 - ii) The current position is highlighted (or root if none selected) and the properties are displayed in the left pane
- b) If no hierarchy has been selected the user is presented with the option to choose a hierarchy
- 2. Select Hierarchy

At any point, the user can select a different hierarchy

- a) From the hierarchy dropdown, the user selects from the list of billing and non-billing hierarchies to which the user has access.
 [B2]
- b) Selects the go action
- c) The selected hierarchy is displayed in the left pane.
- 3. Expand Tree
- a) User expands nodes in order to navigate down into different branches of the tree.
- b) User selects a new position in the hierarchy. [A2]
- c) System refreshes the screen and displays the selected hierarchy node and sub level of the tree.
- d) System displays the selected node details in the node properties window.
- 4. Set Position
- a) User continues to navigate the tree, selects a folder, and selects Set Position action. [B2]
- b) Message is displayed that the new hierarchy position has been set.
- c) System persists this hierarchy name and position throughout the user's session, displaying the new selection at the top of every screen.

The implication of this persistence is that when the user selects another Self Service Manager transaction the same hierarchy filter will be applied to the service agreements initially displayed in step 1.

Alternate Paths:

[A1] Search

This functionality should be similar to what is deployed in TBM hierarchy 1.0 and only include the action to select a folder, account, or phone number that has been returned in the search.

- 1. User selects search criteria (folder, account, phone number), enters search value, and selects search action.
- 2. Search results are displayed
- 3. User selects a hierarchy folder, account, or phone number and selects the "set position" action.
- 4. System performs remaining steps according to the main path

[A2] Old numbers visually differentiated and non-selectable

When a phone number has been successfully changed in Self Service Manager, both the old and new number will be immediately available in a hierarchy view. The old number will be visually differentiated (such as a phone icon with a line through it). Also, the user will not be allowed to select an individual 'old' phone number and then select "set position".

Note the user should be able to select hierarchy nodes that contain old phone numbers.

Note that this visual differentiation only applies to the "set hierarchy position" in the Self Service Manager application. The TBM application will still be able to view both the old and new numbers with no visual differentiation.

Exception Paths:

[E1] User encounters a system error:

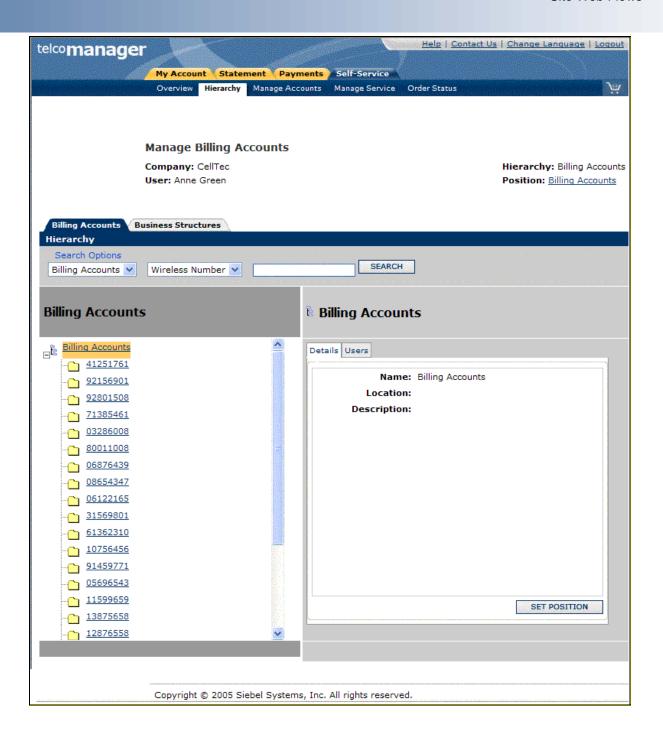
1. System invokes Error Message use case.

Business Rules:

- [B1] System persists this hierarchy name and position throughout the user's session until otherwise user changes it.
- [B2] User can not view hierarchies or hierarchy nodes to which they have not been granted view access privileges
- [B3] Any unassigned accounts or contracts are attached on the top of the hierarchy.
- [B4] Hierarchy Access Control: Users can only view hierarchies to which they have been assigned and positions at or below the positions to which they have been assigned.

Notes:

If an Admin User is not associated with a default hierarchy when a user first enters Self Service Manager (before performing a "set hierarchy position" action), the system will assume the default hierarchy as the billing hierarchy.



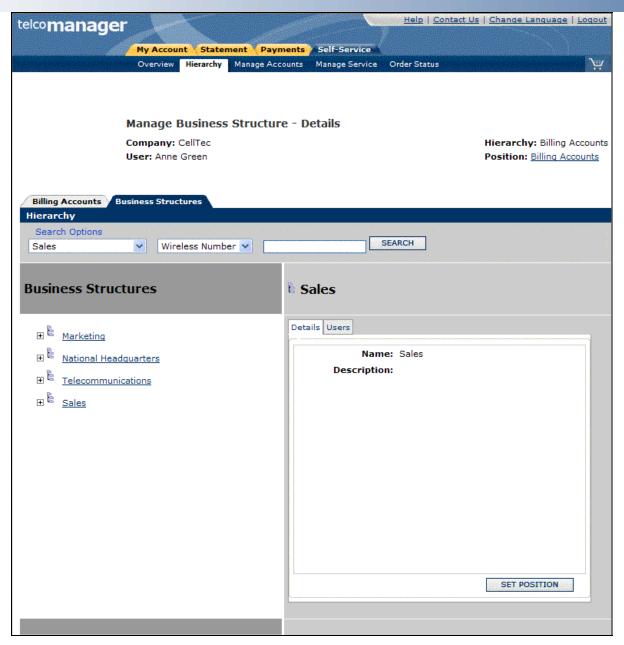


Figure 0-2 Set Hierarchy Position

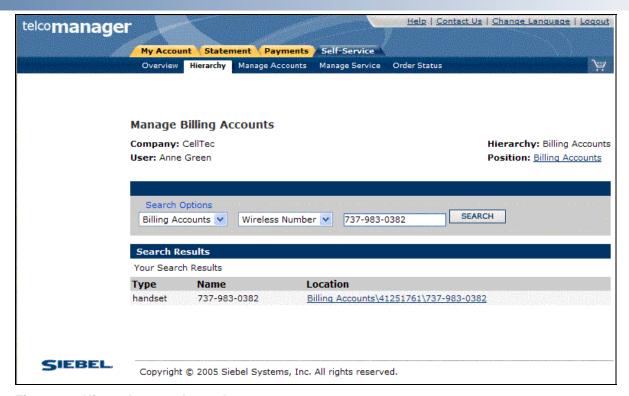


Figure 0-3 Hierarchy search result screen

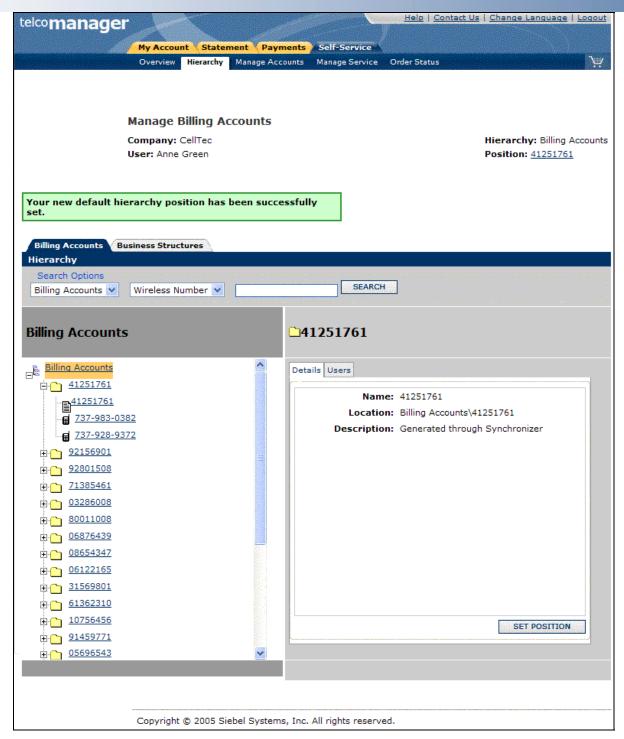


Figure 0-4 Set position confirmation screen

Search & Select Service Agreement

Name:	Search & Select Service Agreement
Brief Description:	This generalized use case describes how the list of service agreements are displayed for selection at the beginning of all Self Service Manager use case and how the user can filter this list and select one or more service agreements. For all use cases that have a workflow, this is step/screen 1.
Actor:	Administrator, CSR
Main Path:	Filtered service agreement's
	On the first screen of each use case, a list of service agreement's is listed in order to enable the user to select one or more service agreement on which to perform a service transaction.
	 a) Hierarchy: If the user previously selected a hierarchy position from the hierarchy screen, then only service agreement's under that selected hierarchy position will be displayed.
	 Each use case may utilize additional filters, such as only showing service agreement's of status suspend for the "Resume Service" use case.
	2. Select Search By Category
	User optionally selects a search category from the "Search By" drop down field and selects the Go action.
	a. Phone Number
	b. Subscriber Last Name
	c. Rate Plan Group
	d. Device Type
	e. Status
	3. Search Value Field Refreshed
	System refreshes the page and displays "search value" field. This field should appear as either a drop down or text field.
	4. Enter Search Value
	User selects or enters "search value" and selects search action.
	a) Phone Number [text field]
	b) Subscriber Last Name [text field]
	c) Rate Plan Group [dropdown field]
	This dropdown works a little differently than the other dropdowns because there can be more than one value dropdown box to further narrow the search criteria.
	User selects a rate plan group from the dropdown field
	User either:
	Accepts the default dfgdg
	 i) Accepts the default "Rate Plan Group" search by criteria option and selects search to display all service agreements of the selected rate plan group
	ii) Selects the "Individual Rate Plan" search by criteria option

and selects search to display a drop down box containing only the rate plan names associated with the previously selected rate plan group. User then selects a specific rate plan name and search to display all service agreements of the selected rate plan name.

- iii) Device Type [dropdown]
- iv) Status [dropdown]
- 5. Display service agreement's

All service agreement's matching the previous filter criteria (main path step one) and service agreement's whose search value contains the text entered (or selected) in the "search by value" field are displayed.

Note: For text fields, the match logic is "starts with" or "exact match". Drop down fields use "exact match" logic.

Columns displayed include

- i) Subscriber Name [primary sort]
- ii) Phone Number
- iii) Rate Plan
- iv) Device
- v) Status
- **6.** User selects a service agreement and selects one (or more for bulk) service agreement(s) and the continue action.
- 7. Use case ends.

Alternate Paths:

[A1] Visually differentiate service agreement's with outstanding transactions

If any service agreements have any of the following service requests with an incomplete status (any status other than successfully completed or failed), the service agreements will be visually differentiated (grey) and will not have active check boxes to prevent the user from being able to select them.

- Add/Delete Features 1.
- Change Device
 Change Phone Change Phone Number
- 4. Port Number
- Activate service
- **6.** Suspend service
- 7. Resume Service
- 8. Deactivate Service

[A2] Visually differentiated old service agreement's

If any of the service agreement's have been successfully changed to new service agreement's, these old service agreement records will be visually differentiated (grey) and will not have active check boxes to prevent the user from being able to select them.

[A3] Bulk selection from multiple pages

Rationale: The user needs to be able to select service agreements from multiple pages and at any time see a list of those service agreements selected.

The screen flow is identical to individual selection described in the main path except:

- 1. User selects more than one service agreement from more than one page.
- 2. At any point the user selects the continue button in step 2 to see the selected service agreements.
- 3. User can either
 - a. Select the remove action to remove any of the selected service agreements. This action should have the same impact as going back to the first screen, finding the service agreement on one of the pages, un-checking it, and selecting continue to return to step 2.
 - b. Choose the back action to return to step 1 and continue selecting/unselecting service agreements. When the user returns to step 1, all the previously selected service agreements should still be displayed.
 - c. Perform the actions required to complete step 2.

[A4] Remove one of multiple service agreements

Rationale: When viewing the list of selected service agreements from step 2, the user should be able to easily remove a record from the list without having to return the first selection screen and page through multiple screens to find the service agreement.

When viewing the list of selected service agreements on the second screen, the user selects the remove action and accepts the confirmation to remove the service agreement. If no service agreements remain selected, the user is returned to step 1 to selected service agreements.

	[A5] Remove All Service Agreements
	Rationale: Enable the user to remove all selected service agreements with one action.
	This alternate path is implemented by selecting the cancel action which returns the user to step 1 with no service agreements selected.
	[A6] Sort Displayed Service Agreements
	Rationale: Enable the user to view service agreements with a common attribute different than the search by category.
	By clicking a column label, the user alternates between ascending and descending sorts.
	[A7] User continues without selecting a service agreement .
	System displays an error message and prompts to select a service agreement to perform any self-service action.
	[A8] Select all service agreements for the search.
	Rationale: Enables the user to select all service agreements with one action.
Exception Paths:	[E1] System displays "Search result not found" message.
	System prompts to select valid search criteria.
Configuration Points:	Service agreements displayed in the selection screen is based on the users default hierarchy scope and the filter (configurable) for each self-service transaction.
Business Rules:	[B1] System makes an external call to the database, retrieves user details and displays ten records per page (or whatever number is configured for this use case). System also provides ability to sort the search results based column header labels.
	[B2] System persists the users hierarchy scope throughout the session.
Notes:	System supports paging function. The number of user records displayed on each page is initially set to10. System enables and displays paging icon if the search result has user records greater than 10.



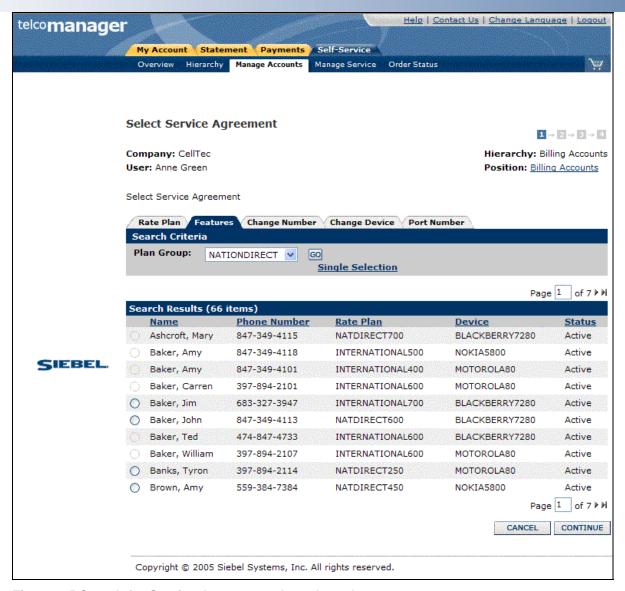


Figure 0-5 Search for Service Agreements based on plan group

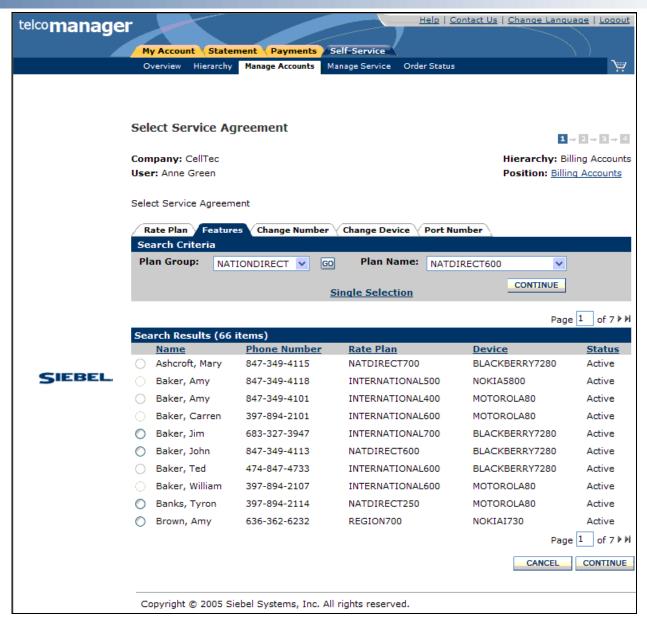


Figure 0-6 Search for Service Agreements based on rate plans

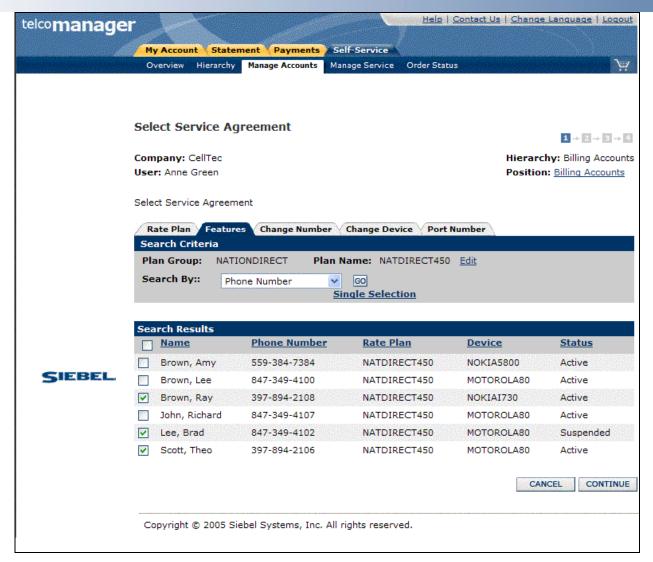


Figure 0-7 Select Service Agreement

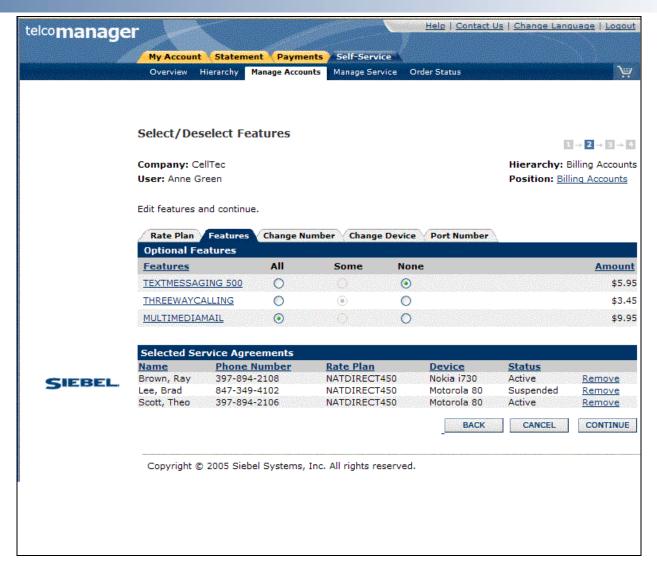


Figure 0-8 Step 2, View Service Agreements Selected in Bulk

Self service Overview Use Case

The Self Service Manager overview use case is addressed below.

B2B – Self Service Manager Overview

Name:	Self Service Manager.	
Brief Description:	The overview screen displays 'dashboard' metrics and provides quick links to self-service functions.	
Actor	Admin User	
Main Path:	1.	Admin user selects self-service tab.
	2.	System displays services overview page including:
	a)	User name, company name, hierarchy name and the current position in the hierarchy.
	b)	Displays new rate plans available. [A1] (Static image displayed to illustrate possible visions for how this screen could be used).
	c)	Top 5 Service Agreements List of top service agreements with highest billings from most recent statement (from TBM overview screen)
		If the user clicks on any of the phone numbers, system invokes the "Change Rate Plan" use case with this service agreement selected.
	d)	Link to rate plan advisor. [A2] (Until integrated in [A2] this should be just a static image displayed to illustrate possible visions for how this screen could be used).
	e)	Search bar, to track service request status. [A3]
	f)	Quick Links to the self-service actions. [A4]
	g)	Recent Service Requests [A5
	3.	Use case ends.

Name:	Self Service Manager.
Alternate Paths:	 [A1] User clicks on new rate plans links. 1. System invokes Manage Accounts > Change Rate Plan use case. [A2] User enters tracking number and selects submit action. 1. System invokes order status use case displaying the tracking number entered in the overview screen. [A3] User selects a quick link.
	System invokes self service actions and corresponding use case.
	[A4] Recent Service Requests
	Count of submitted service transactions within the last month.
	Fields Displayed ◆ Description See Service Transactions Displayed List below. If the user clicks on this hyperlink, the Order Status screen is launched with only the selected service requests displayed. ◆ Service Lines Count of service requests initiated within the last month (service provider configurable time period) matching the status
	and transaction type of the description
	Service Transactions Displayed ◆ Pending – All transactions (Count of any transaction requests [individual count, not bulk] submitted within a configurable time period (default 30 days) with a status of "pending") ◆ Failed – All Transactions (Count of any transaction requests [individual count, not bulk] submitted within a configurable time period (default 30 days)
	with a status of "failed") Success - Change Rate Plan Transactions (Count of any transaction requests [individual count, not bulk] with any status submitted within the last month (configurable time period) to change rate plan) Success - Change Features (Count of any transaction requests [individual count, not bulk] with any status submitted within the last month to change
	features)
Exception Paths:	[E1] User encounters a system error:1. System invokes <u>Error Message</u> use case.
Business Rules:	[B1] The scope of the content in the dashboard depends upon the user (Administrator, Business or Subscriber) login.
Notes	Self-service tab in the dashboard provides a quick link capability to B2B functionalities and other features of Self Service Manager.

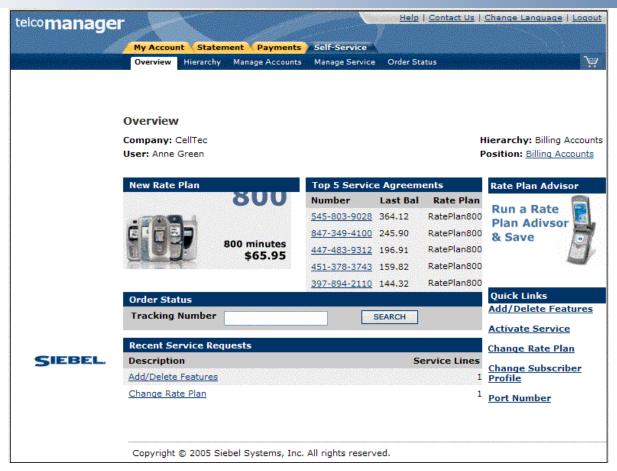


Figure 0-1 Overview Screen for Admin User

Manage Account Use Cases

The comprehensive self service capabilities available to the user are addressed in the following use cases below.

The self service features covered includes:

• Change rate plan

Provides ability for the administrator to change an individual rate plan (main path) or a bulk request for multiple service agreements (alternate path).

• Add / Delete features

Provides ability for the administrator to change an individuals rate plan features (main path) or bulk request for multiple service agreements (alternate path).

Change Device

Enables the business user to change the device associated with an individual service agreement (main path) or in bulk. This transaction is performed by changing the device serial number associated with the service agreement.

• Change Phone Number

Enable a business user to change the phone numbers associated with an individual service agreement.

• Port number

Enables the user to replace an existing number with a new number from different service provider.

Change Rate Plan

Name:	Change Rate Plan	
Brief Description:	Provides ability for the administrator to change an individual rate plan (main path) or a bulk request for multiple service agreements (alternate path).	
Actors:	Admin, Manager	
Main Path:	User selects Manage Account > Change Rate Plan option.	
	Step 1: Select service agreement	
	User optionally invokes the Search & Select use case (uc0060) to filter displayed service agreement's.	
	User selects a service agreement from the list and selects continue action.	
	Step 2: Select Plan	
	 System displays the selected service agreement, its rate plan, and its selected features. 	
	User selects a new plan group from the drop down and search action.[B1]	
	Plan Group dropdown field displays all plan groups available for the	

company to which the service agreement belongs.

- **6.** System displays list of plans with the following columns:
- a) Plan Name
- b) Peak Minutes
- c) Weekend Minutes
- d) Night minutes
- e) Amount
- 7. User selects plan and continue action [A2]

Step 3: Select Features

8. System displays selected rate plan details with included and optional features. [B2] [A1]

System makes an external call and based on the selected rate plan displays the set of included and optional features.

9. User selects optional features and selects continue action.

Features that are included with the plan at no charge cannot be modified.

Step 4: Verify Selections

- 10. System displays the summary of :
- a) selected rate plan and included features.
- Selected optional features and the estimated total amount changes.
- System allows the user to go back to the previous screen to edit the selection.
- 11. User verifies and selects confirm action.

Step 5: Confirmation

- **12.** System displays a confirmation message and tracking number with options to print the confirmation page for user records.
- 13. Use case ends

Alternate Paths:

[A1] Bulk Change

User selects more than one service agreement on which to perform a rate plan change.

This alternate path is the same as the main path except that the Step 2, "Select Plan" screen

- 1. displays the multiple service agreements selected.
- does not display the current plan and plan features for the selected service agreements because it would not be clear which plan and features related to which service agreement.

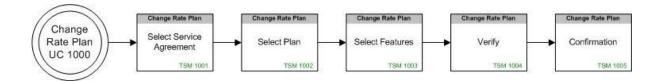
[A2] User selects continue action without selecting a rate plan.

System displays an error message and prompts to select a rate plan and continue.

[A3] User clicks on a rate plan for details

When this hyperlink is selected, another screen is displayed with more information about the plan and a single action to return to the previous screen.

	[A4] User clicks on feature for more detail When this hyperlink is selected, another screen is displayed with more information about the feature and a single action to return to the previous screen.
Standard	1. Cancel action
Features	2. Back action
	3. Paging action (number of lines configurable by use case)
	4. Track service request
Exception Paths:	[E1] User encounters a system error:
	System invokes <u>Error Message</u> use case.
	[B1] Service agreements with device features that do not support the selected features are not modified.
	[B2] System makes an external call and based on the selected rate plan displays the set of included and optional features.
	a) Features that are included with the plan at no charge cannot be modified.
	b) System allows to select optional features.
Notes	Devices not compatible to the selected plan and features are not affected.
	System displays a non-monetary value for all the optional features.



Individual user flows for Change Rate Plan (as opposed to bulk) telcomanager My Account Statement Payments Self-Service

Manage Service Order Status

Overview Hierarchy Manage Accounts

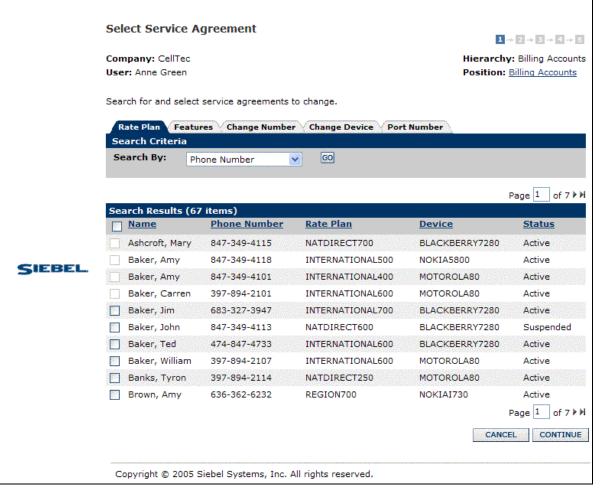


Figure 0-1 Search and Select service agreement

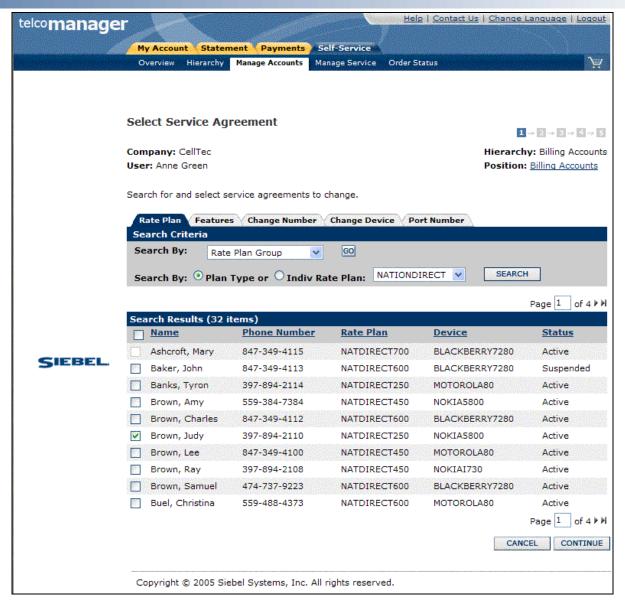
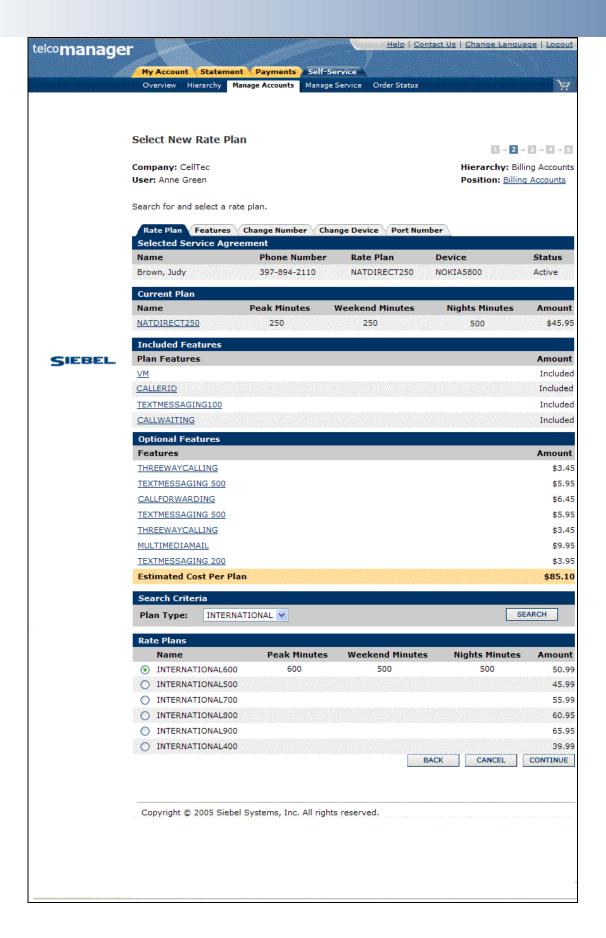


Figure 0-2 Select service agreement



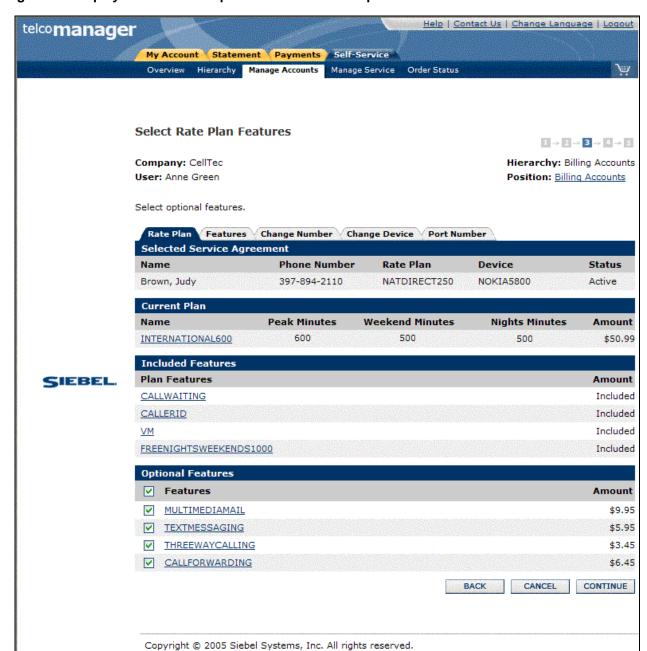


Figure 0-3 Displays users current plan and available rate plans

Figure 0-4 Select optional features

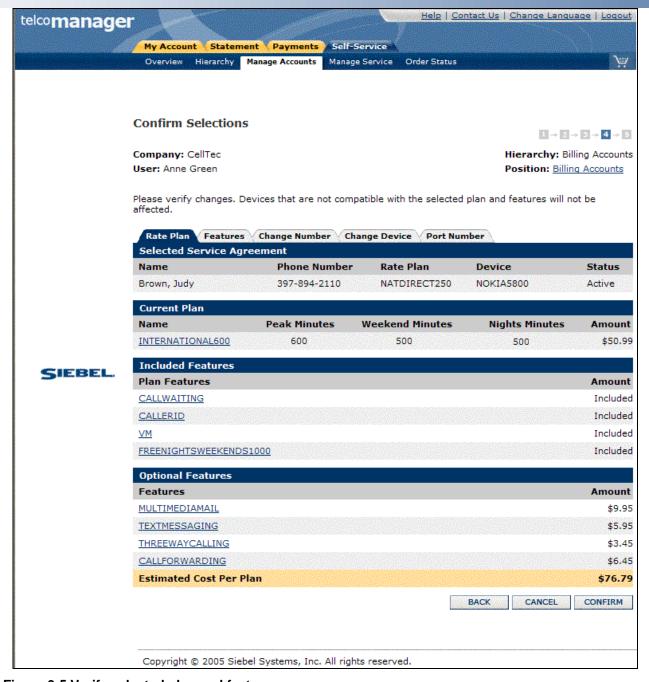


Figure 0-5 Verify selected plan and features

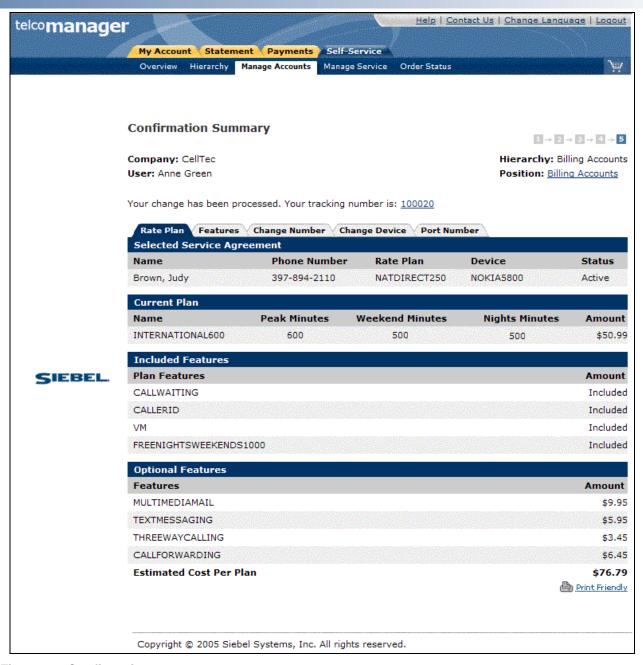
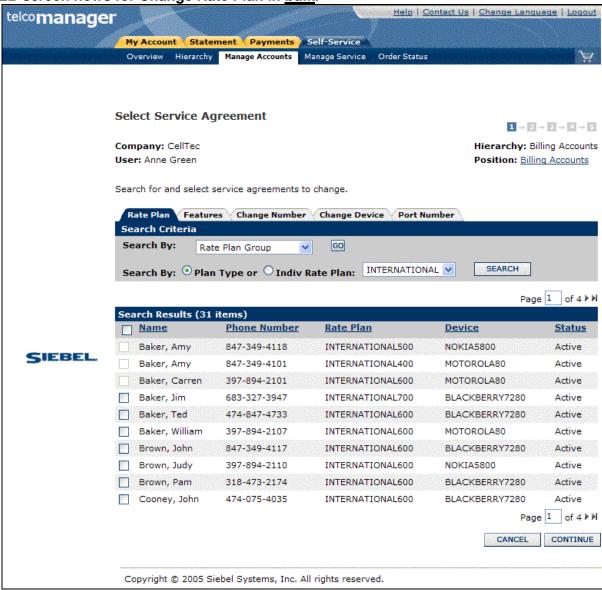


Figure 0-6 Confirmation screen

B2B screen flows for Change Rate Plan in bulk.



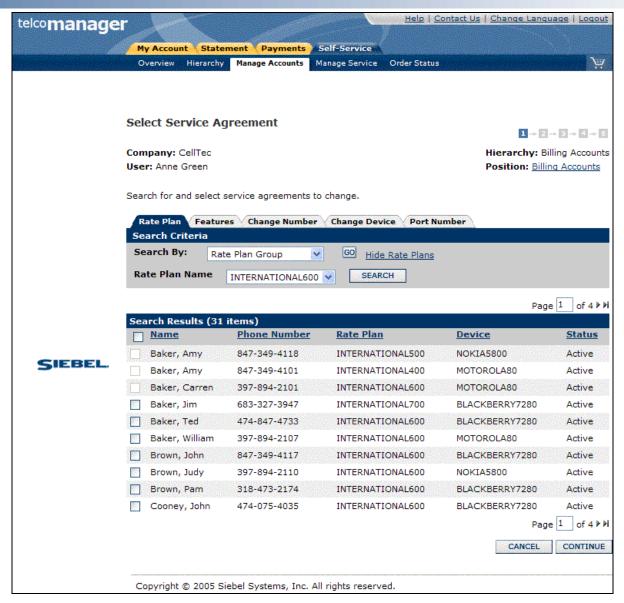


Figure 0-7 User filters service agreements based on plan type

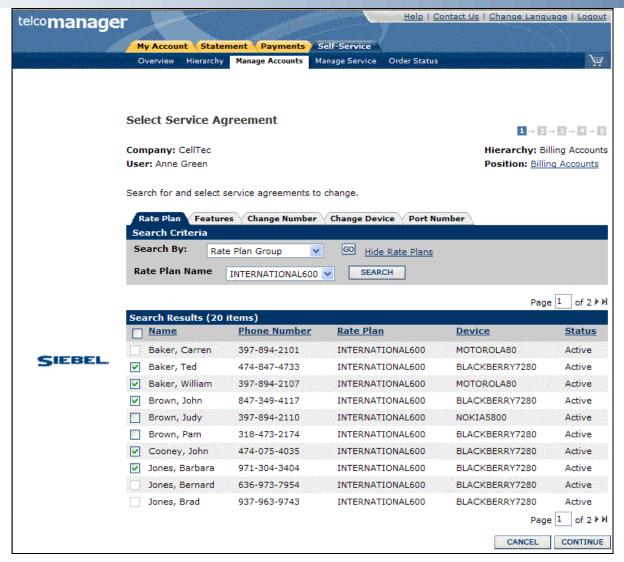


Figure 0-8 User filters the list based on plan type, rate plan and select multiple service agreement

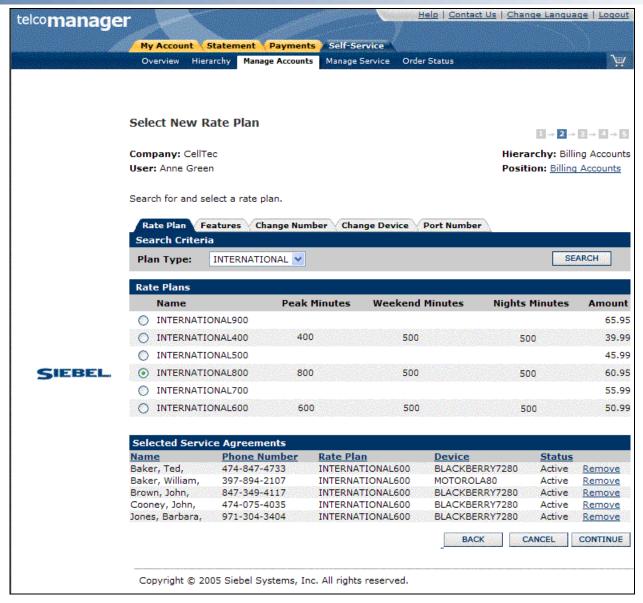


Figure 0-9 Screen displays the available rate plans

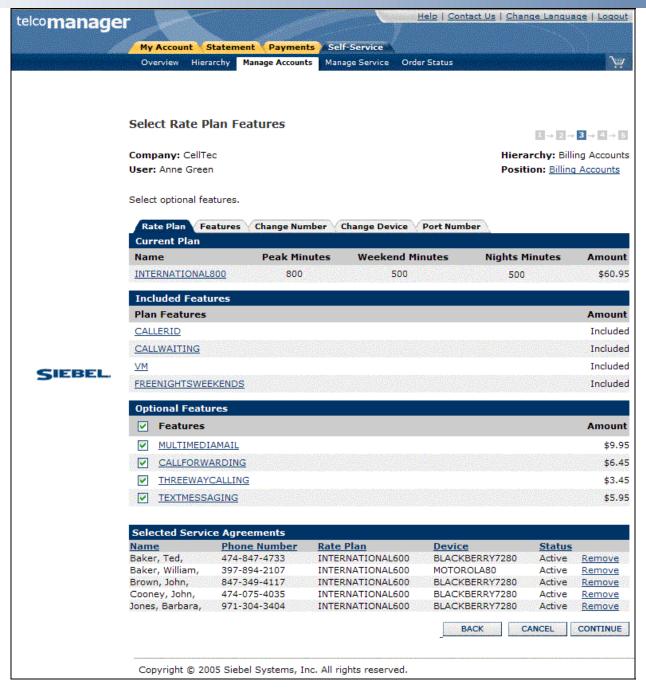


Figure 0-10 Screen displays selected plan with included and optional features

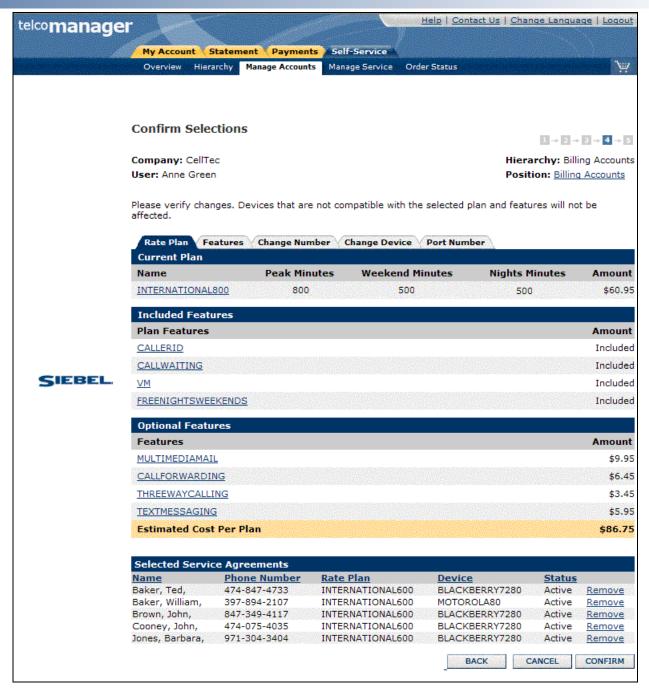


Figure 0-11 Displays the summary of plan package

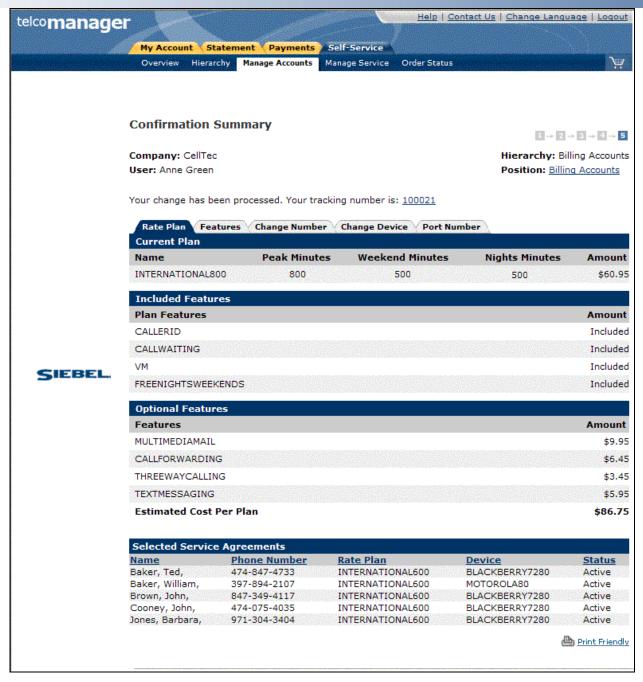


Figure 0-12 Confirmation screen displays rate plan change

Add / Delete Features

Name:	Add and delete features to the existing plan.	
Brief Description:	Provides ability for the administrator to change an individuals rate plan features (main path) or bulk request for multiple service agreements (alternate path).	
Actors:	Admin, Manager	
Main Path:	User selects Manage Account > Add/Delete features option. Step 1: Select service agreement	
	User optionally invokes the Search & Select use case to filter displayed service agreement's.	
	User selects a service agreement from the list and selects continue action.	
	Step 2: Select/Deselect Features	
	 System displays the selected service agreement, its rate plan, included and optional features list with price details and the current selections checked. 	
	User selects and deselects features and selects continue action.[B1]	
	Step 3: Verify selections	
	6. System displays the summary of rate plan and its included and optional features selected and the price details (if available for bulk selection from service provider).	
	System also displays the estimated total amount changes for the plan based on the current selection.	
	8. User verifies and selects confirm action.	
	Step 4: Confirmation	
	System displays confirmation message and tracking number with options to print the confirmation page for user records.	
	10. Use case ends	
Alternate Paths:	[A1] Bulk Change	
	User selects more than one service agreement to add/delete features in bulk.	
	This alternate path is the same as the main path except for the following steps.	
	Step 1 : "Select Service Agreements"	
	User selects the "Multiple Selections" action. (note this action changes to "Individual Selection" so if selected again returns the screen to the individual non-bulk mode).	
	The search criteria changes to only include Rate Plan Group and Rate Plan Name fields. (guarantees that all selected service agreements have the same optional features).	
	User selects a plan group and 'Go' action. System displays the rate plan names in dropdown with 'Search' option.	
	b. User selects a rate plan name and 'continue' and is presented	

Name:

Add and delete features to the existing plan.

with the same selection criteria as for individual selection except selected the rate plan group and names are displayed at the top of the screen with an edit action next to them.

c. User selects a value criteria from the Search By field (which excludes rate plan since it was already selected), select 'Go', enters the search value, and selects search.

The search includes both the search by value as well as the previously selected rate plan name and displays the matching service agreements with checkboxes rather than radio buttons.

- d. User selects multiple service agreements.
- 2. Step 2: "Select Features" screen displays the following

Instructional text: "Edit whether feature is included in all, some, or none of the selected service agreements"

Service provider returns a list of features for which it will allow changes based on the selected service agreements. *Note*, that if the service agreements have different plans, the service provider may need to apply logic to determine what features it will allow the user to change.

- a. Feature prices may or may not be displayed.
- b. Feature radio buttons will be:
 - i. All: if all selected service agreements have this feature
 - ii. Some: If only some service agreements have this feature.
 - iii. None: If no service agreements have this feature
- 3. Step 3: "Confirm Selections" screen only displays features and price details (if available for bulk selection from the service provider.

[A2] User clicks on the rate plan for details

When this hyperlink is selected, another screen is displayed with more information about the plan and a single action to return to the previous screen.

[A3] User clicks on feature for more detail

When this hyperlink is selected, another screen is displayed with more information about the feature and a single action to return to the previous screen.

[A5] Partial Success

If a user selects multiple features to be added to a service agreement and the service provider only adds some of these service agreements than the service provider can return any value they wish for the transactions status (such as "Partial Success). The Service Agreement rate plan feature instance will only be updated with the features the service provider activates. If this individual transaction is part of a bulk transaction, the bulk status should be "Closed-Success".

Note that the service provider will need to add this new status value to a configuration file (sm.xma.xml) so that it appears as one of the order line status choices in the Order Status Screen.

Rationale: If the service agreement device type does not support a requested feature and the service provider does not filter the service agreements displayed to the user, than this alternate path would exist.

Name:	Add and delete features to the existing plan.
Standard Features:	1. Cancel action
	2. Back action
	3. Paging action
	4. Track service request
Exception Paths:	[E1] User encounters a system error.
	System invokes Error Message use case.
Business Rules:	[B1] System makes an external call and displays those optional features available for change for the selection (bulk) of service agreements.
	 Optional features already selected are marked with solid (all selections) or grey (some of selections) check in the checkbox.
	2. System allows to either select all(add) or none(delete) option
Notes:	Service agreements with device that do not support the selected features are not modified.
	2. System displays a non-monetary value for all the optional features.



Individual user flows for Add/Delete Features (as opposed to bulk)

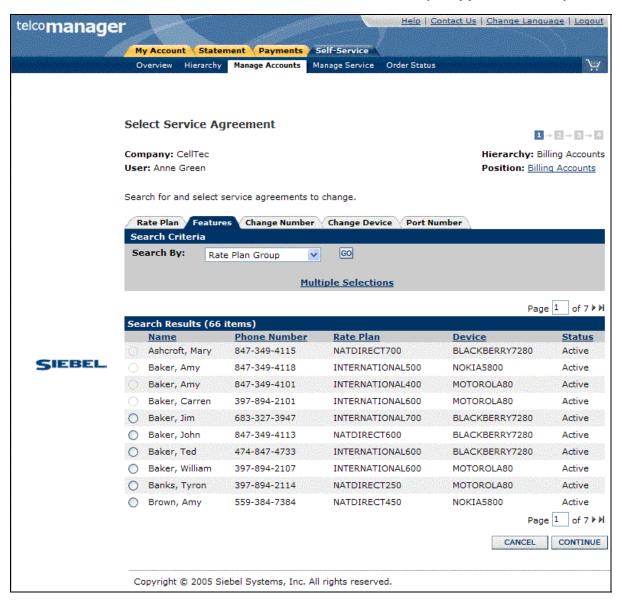


Figure 0-13Search for a service agreement

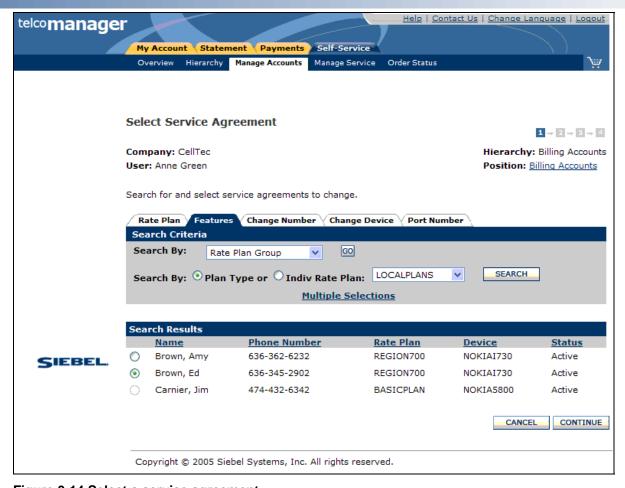


Figure 0-14 Select a service agreement

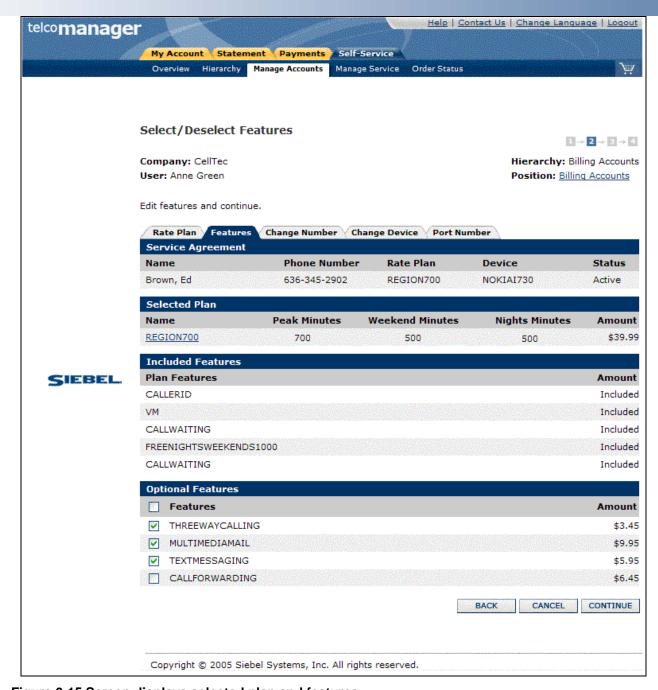


Figure 0-15 Screen displays selected plan and features

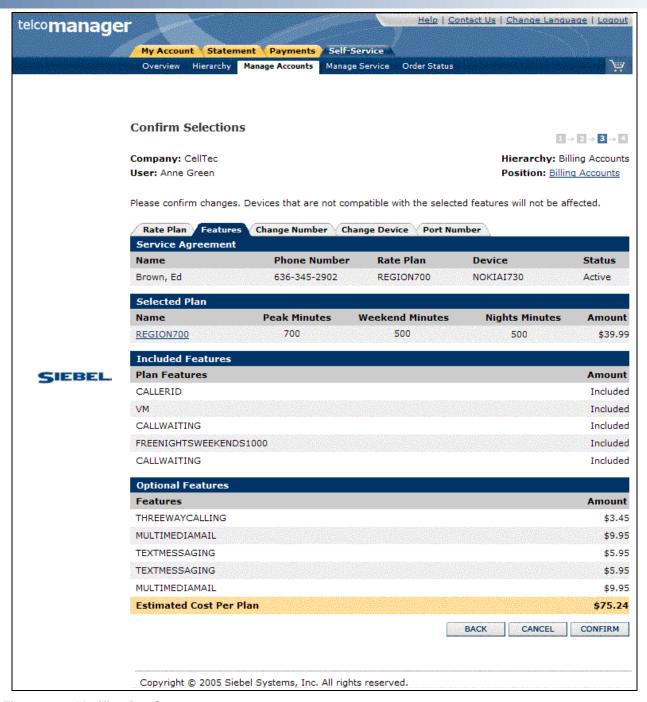


Figure 0-16 Verification Screen

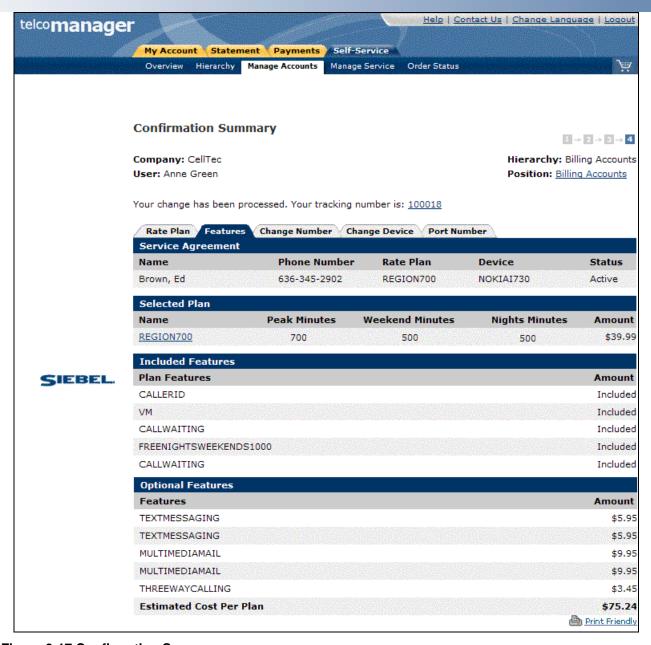
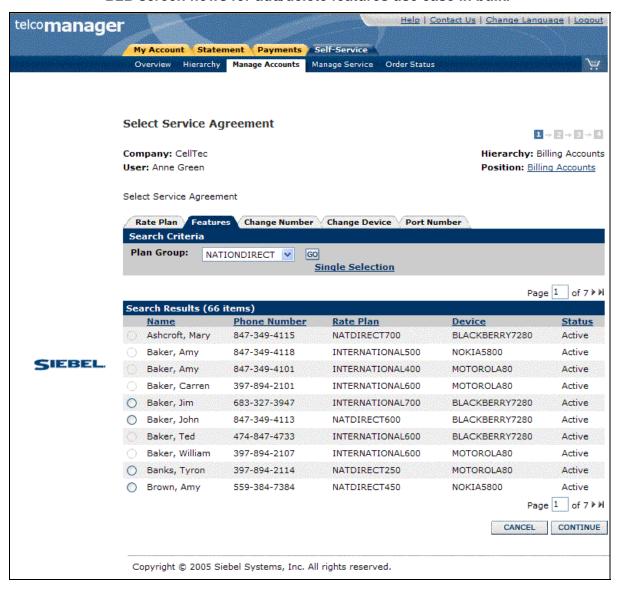


Figure 0-17 Confirmation Screen

B2B screen flows for add/delete features use case in bulk.



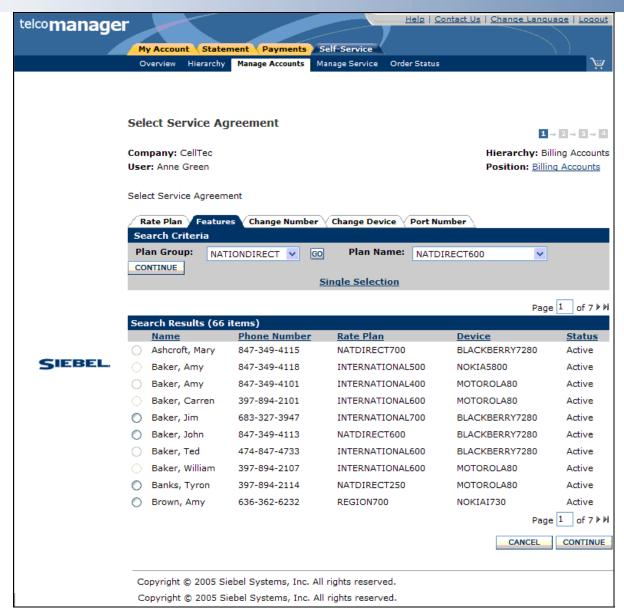


Figure 0-18 User selects multiple selections mode and first filters by Rate Plan Name before further filtering and selecting service agreements

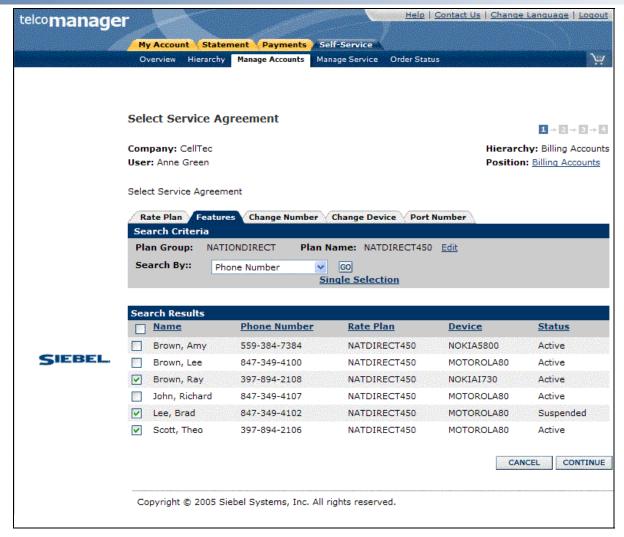


Figure 0-19 User selects multiple service agreements

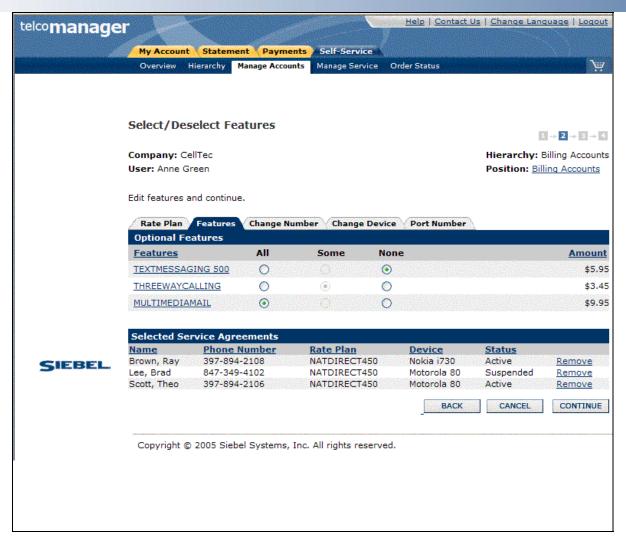


Figure 0-20 Sample screen displays current selections

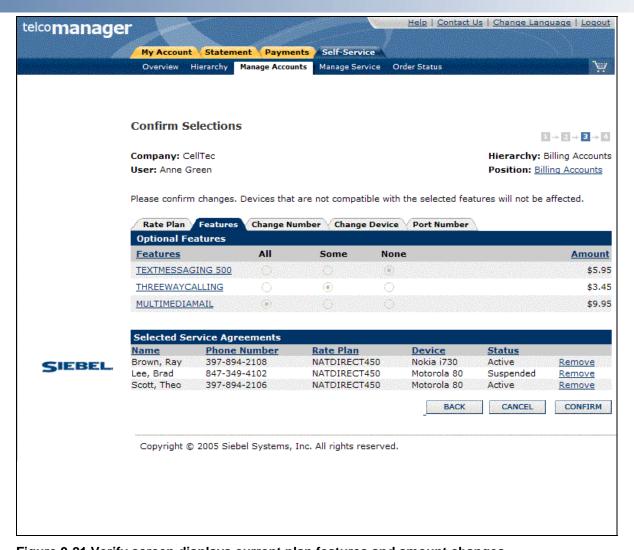


Figure 0-21 Verify screen displays current plan features and amount changes

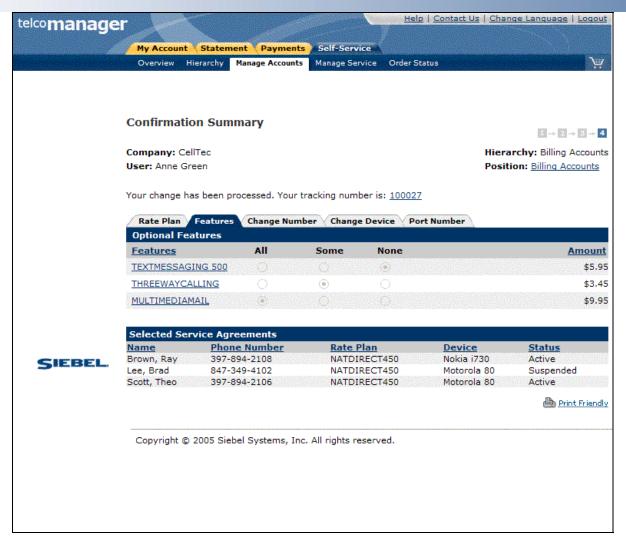


Figure 0-22 Confirmation page displays selected features

Change Device

Name:	Change Device	
Brief Description:	Enables the business user to change the device associated with an individual service agreement (main path) or in bulk. This transaction is performed by changing the device serial number associated with the service agreement.	
Actors:	Admin, Manager	
Main Path:	User selects Manage Account > Change Device option. Step 1: Select service agreement	
	User optionally invokes the Search & Select use case to filter displayed service agreement's.	
	User selects a service agreement from the list and selects continue action.	

Step 2: Enter New DSN

 System displays details for the selected service agreement including the current DSN and prompts the user to enter a new device ID.

DSN (Required)

5. User enters the DSN and selects continue action. [A2]

DSN Step 3: Verify

6. User verifies and selects confirm action.

Step 4: Confirmation

- System displays a tracking number and confirmation message for DSN change with an option to print the page for user records.
- 8. Use case ends.

Alternate Paths:

[A1] Bulk Change

- 1. User selects more than one service agreement to change DSN.
- This alternate path is the same as the main path expect that the Step 2 displays multiple service agreements selected.

[A2] Invalid DSN

If one or more DSNs are invalid

- A warning message is displayed "The following DSNs are not recognized. Please enter new ones.
- 3. The system highlights invalid device lds.
- 4. User either:
 - Enters new device IDs.
 - Selects the remove action for the service agreement(s) with the invalid lds.
- 5. Selects continue

Standard Features:

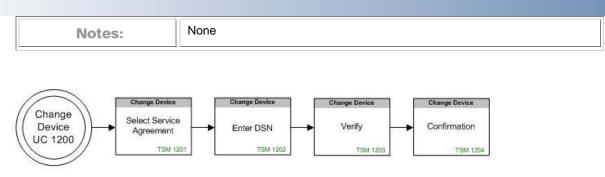
- 1. Cancel action
- 2. Back action
- 3. Paging action
- 4. Track service request

Exception Paths:

- [E1] User encounters a system error:
 - 1. System invokes Error Message use case.
- [E2] System prompts to re-enter DSN.
 - System populates the DSN entry from the user session for the error screen.
 - 2. System displays an error message stating that the DSN is not valid for the network and to contact the service provider.

Business Rules:

- **[B1]** System does a basic validation for DSN (checks for empty string) field. Service provider should check the network compatibility based on DSN entered..
- [B2] DSN validation combination of Hex and Decimal characters
- **[B3]** System checks the current plan and support features of the device based on DSN.



B2B screen flows for Change Device use case

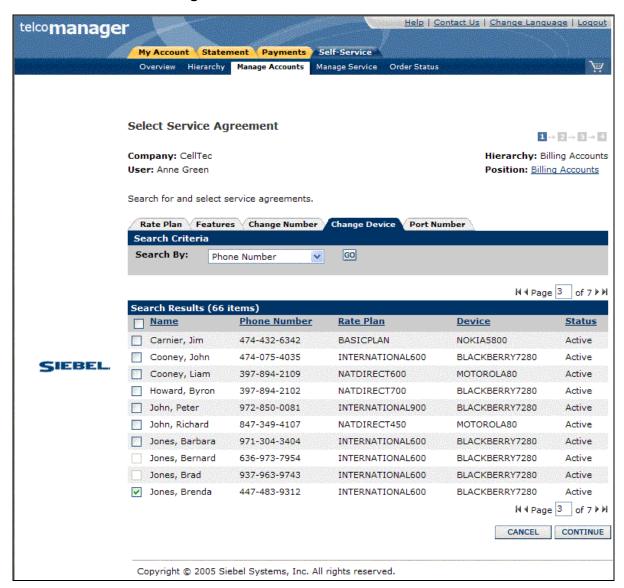


Figure 0-23 Select service agreements

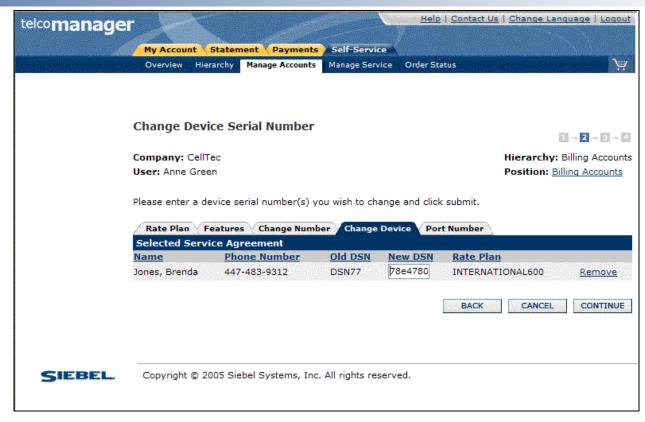


Figure 0-24 User enters new device serial numbers

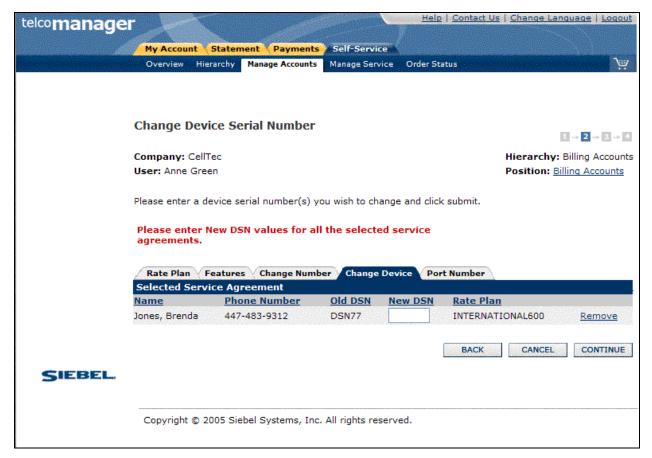


Figure 0-25 Invalid DSN system error screen

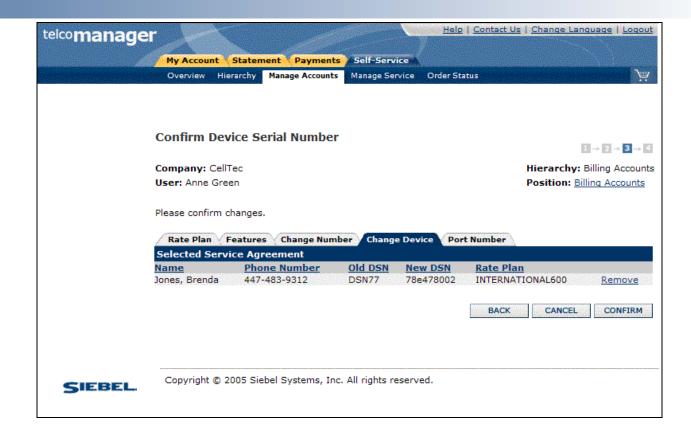


Figure 0-26 Verify DSN change

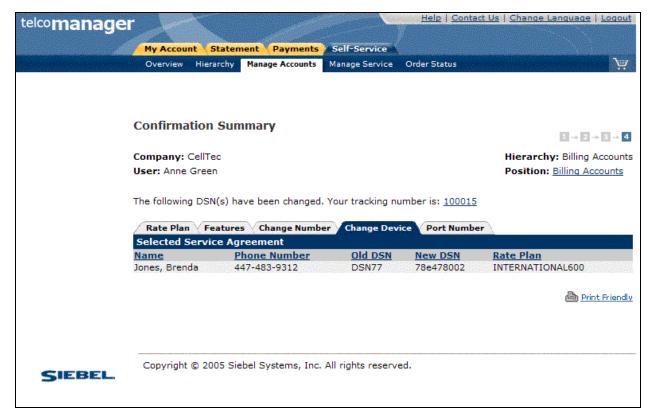
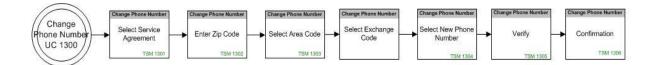


Figure 0-27 Confirmation screen for DSN change

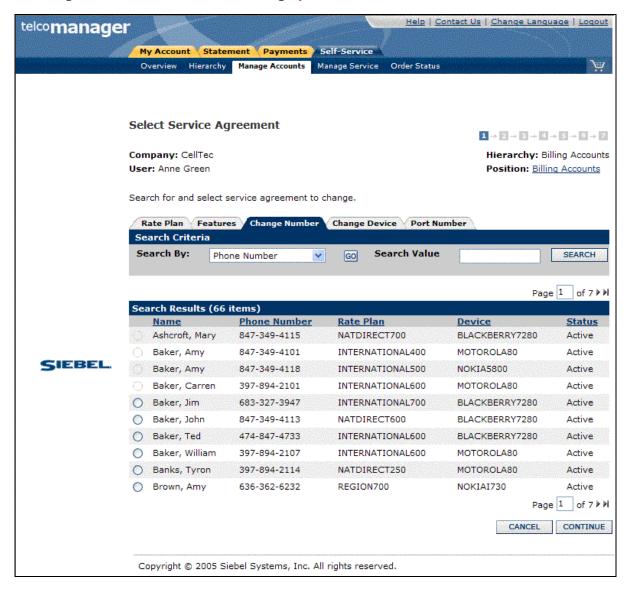
Change Phone Number

Change Phone Nun	
Name:	Change Phone Number.
Brief Description:	Enable a business user to change the phone numbers associated with an individual service agreement.
Actor(s):	Administrator, Manager
Main Path:	User selects Manage Account > Change PHONE NUMBER option.
	Step 1: Select service agreement
	User optionally invokes the Search & Select use case to filter displayed service agreement's.
	 User selects an individual service agreement from the list and selects continue action.
	Step 2: Enter Zip Code
	 System displays selected service agreement details and prompts to enter zip code.
	User enters billing or primary point of usage zip code and selects continue action.
	Step 3: Select Area Code
	6. System displays list of area codes in a dropdown.
	7. User selects an area code and selects continue action.
	Step 4: Select Exchange Code
	8. System displays list of exchange codes in a dropdown.
	User selects an exchange code and selects continue action.
	Step 4: Select New Phone Number
	10. System displays a list of new numbers. [B1]
	11. User selects a number and selects continue action.
	Step 5: Verify Phone Number
	12. System displays selected number for verification.
	13. User verifies and selects confirm action. [A4]
	Step 6: Confirmation
	14. System displays confirmation message with tracking number and an option to print the page for user records.
	15. Use case ends.
Alternate Paths:	[A1] Update hierarchy upon successful completion
	When the change phone number transaction completes successfully, the new phone number is added to the list of phone numbers displayed in the hierarchy module.
	As noted in the "Search & Select Service Agreement" use case, old numbers selected in the "Set Hierarchy Position" use case will be visually differentiated in Self Service Manager so that they can not be selected.
	II.

	 [A2] User selects continue action without selecting a new phone number from the list. 1. System displays error message and prompts to select a new number and continue
Standard Features:	 Cancel action Back action Paging action Track service request
Exception Paths:	[E1] User encounters a validation error:1. System invokes <u>Error Message</u> use case.
Business Rules:	[B1] System makes an external call to the TNI. The generated number are based on primary point of usage or billing address zip code, area code and exchange code.
Notes:	 System displays 5 new phone numbers to the user. (Display list is configurable). System supports paging function. The number of user records displayed on each page is initially set to 10. System enables and displays paging icon if the search result has user records greater than 10. Required Fields: ZipCode. Uses 9 digit (XXXXX-XXXX) format.
	b. Area Code and Exchange Code



Following are the screen flows to Change phone number



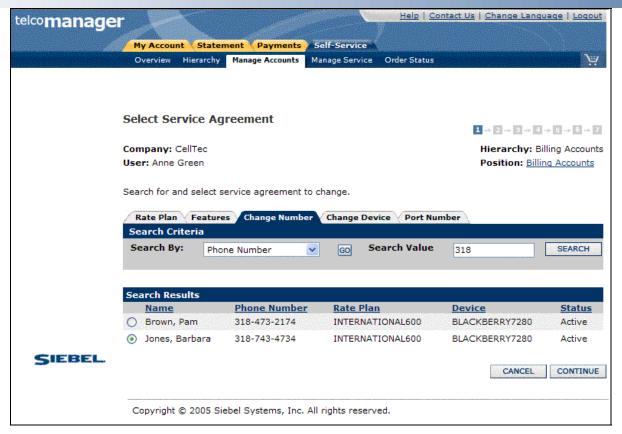


Figure 0-28 Change Phone Number - Search and Select Service Agreement

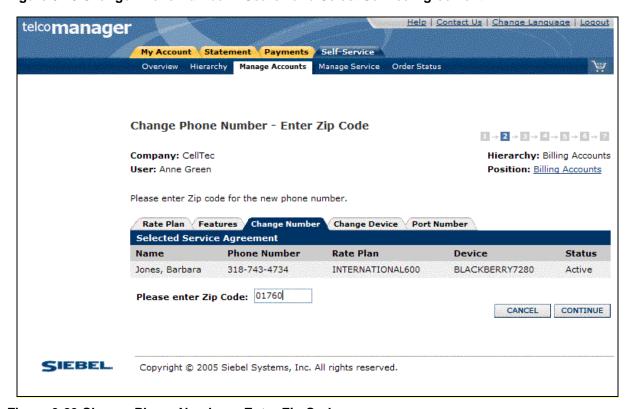


Figure 0-29 Change Phone Number – Enter Zip Code

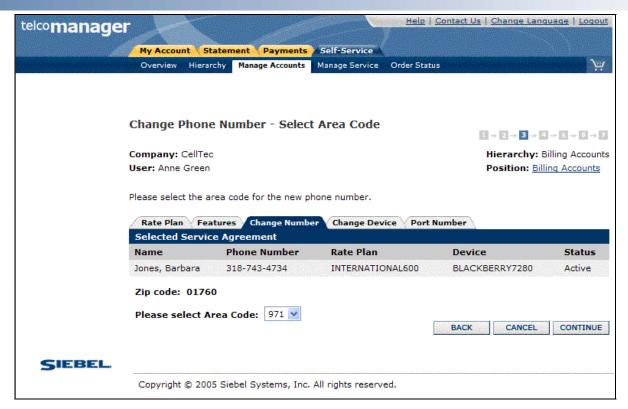


Figure 0-30 Change Phone Number – Select Area Code

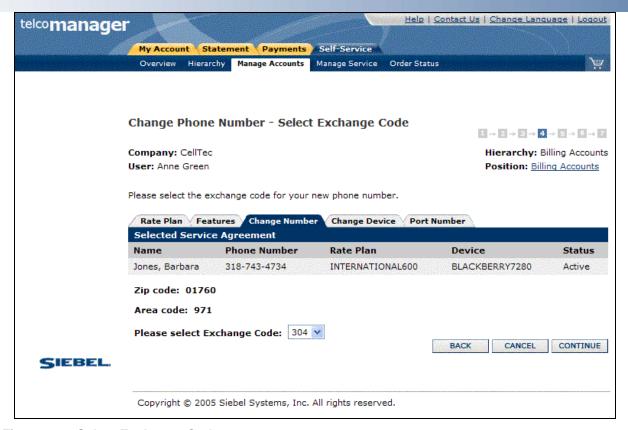


Figure 0-31 Select Exchange Code

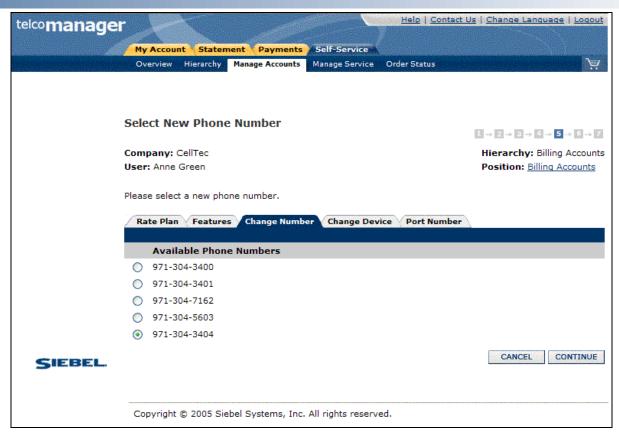


Figure 0-32 Select New Phone Number

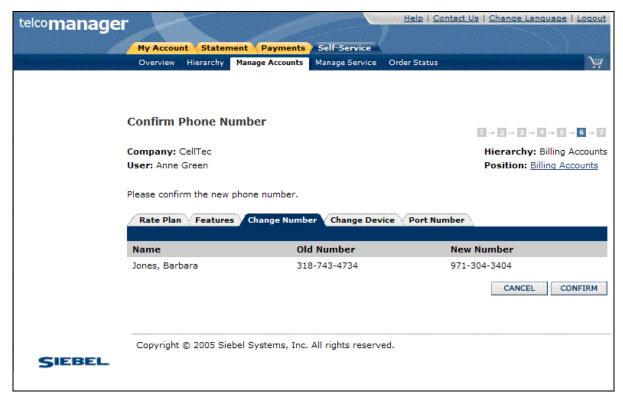


Figure 0-33 Confirm New Phone Number

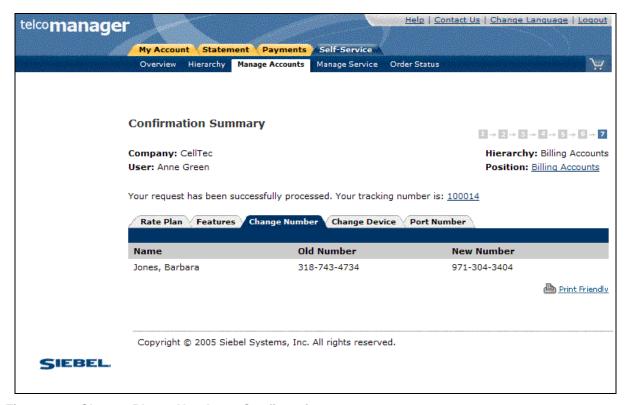
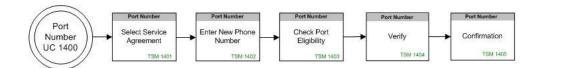


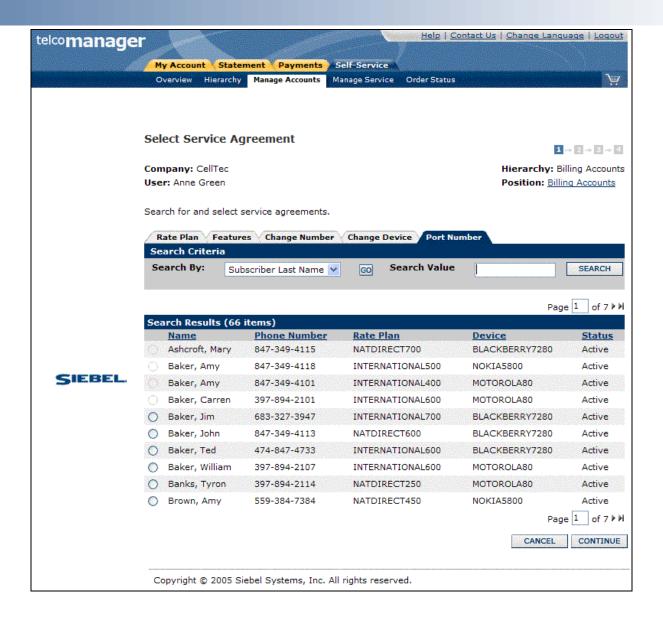
Figure 0-34 Change Phone Number – Confirmation

Port Number

Name:	Port Telephone Number
Brief Description:	Provides the ability for a business user to port numbers in bulk (alternate path) and individually (main path).
	Rationale: Port number enables the user to replace an existing number with a new number from different service provider.
Actors:	Admin, Manager
Main Path:	User selects Manage Account > Port Number option.
	Step 1: Select service agreement
	User optionally invokes the Search & Select use case to filter displayed service agreement's
	User selects a service agreement from the list and selects continue action.
	Step 2: Enter New Phone Number
	4. System displays the details for the selected service agreement including the current phone number and prompts the user to enter the following:
	New Phone Number [Required] [Ten digit number with optional separator characters]
	(i) Account Number [optional]
	(ii) Address, State, City and Zip Code [optional]
	User enters new number to port for the selected service agreement and selects the continue action. [E2 - E4]
	Step 3: Check Port eligibility
	6. System validates and displays the number to port. [A2]
	Step 4: Verify
	7. User verifies and selects confirm action.
	Step 5: Confirmation
	System displays confirmation page with tracking number to check port status and an option to print the page for user records.
Alternate Paths:	[A1] Number ineligible to port
	If the service provider can respond to an interim request and identifies that one or more numbers are ineligible to port
	 A warning message is displayed "The following numbers are not eligible to be ported. Please enter a new ones or remove the service agreements.
	a) The system highlights ineligible numbers.
	b) User either:
	a. Enters new number.
	b. Selects the remove action for the service agreement(s) with the invalid lds.
	c) Selects continue

Standard Features:	1.	Cancel action
	2.	Back action
	3.	Paging action
	4.	Track service request
Exception Paths:	[E1]	User encounters a system error:
		System invokes <u>Error Message</u> use case.
	[E2]	System displays error message for 'Invalid Phone number' entries.
	[E3]	System displays error message – "Phone number is not eligible to port."
	[E4]	System displays error message if the port number is repeated by the user and prompts to re-enter
Business Rules:	[B1]	System validates phone number and checks the network compatibility for these numbers to port from different service provider.
Notes:		System does not support to change to another existing number that ney own within the same service provider.





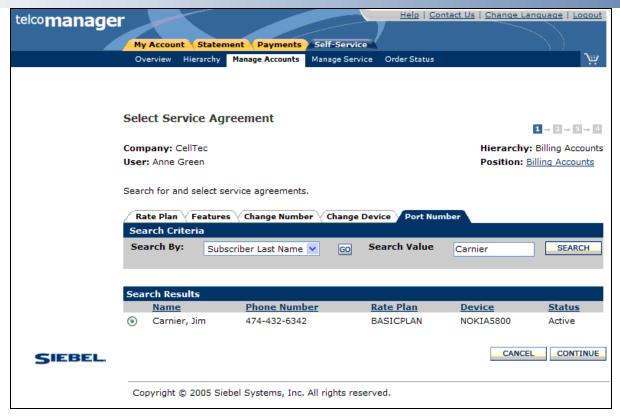


Figure 0-35 Search and select service agreements

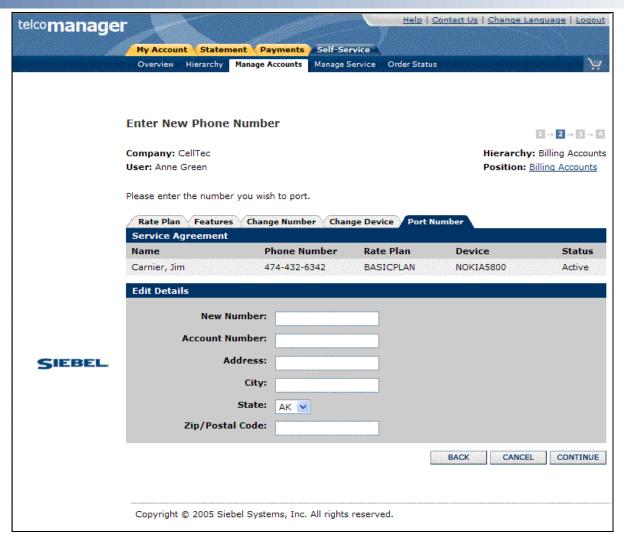


Figure 0-36 Sample screen to input numbers to port in bulk

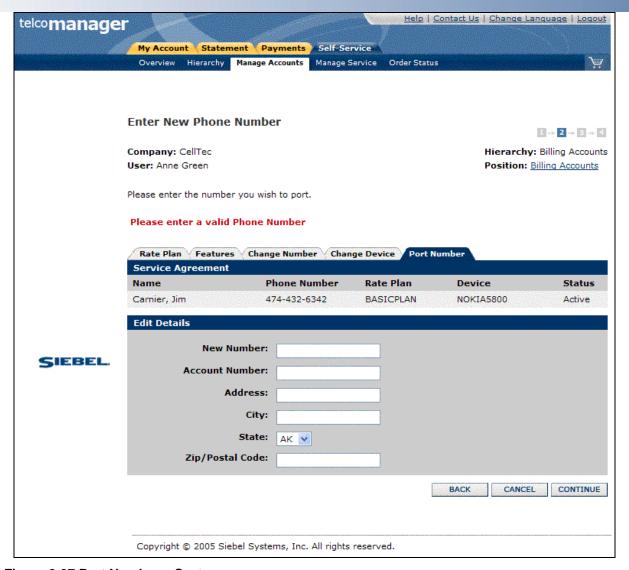
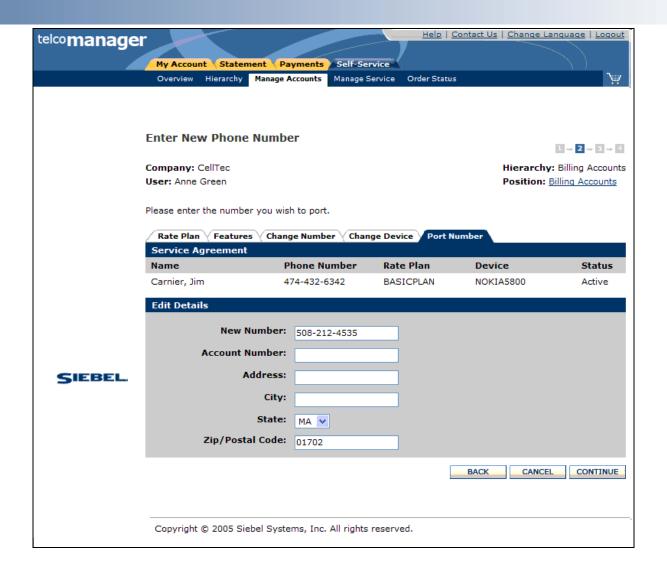


Figure 0-37 Port Number – System error screen



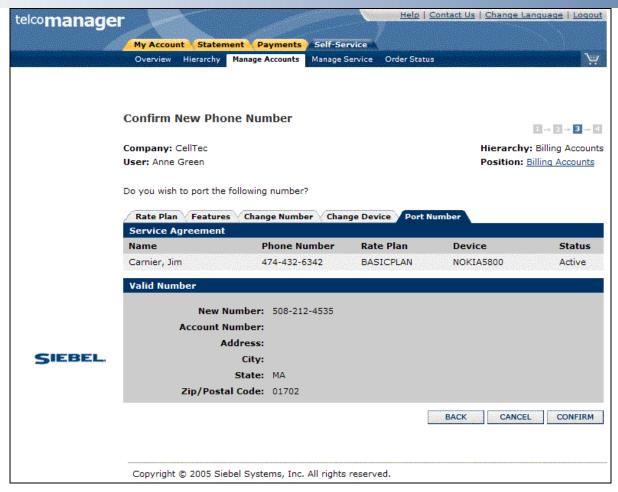


Figure 0-38 Verify Phone Number

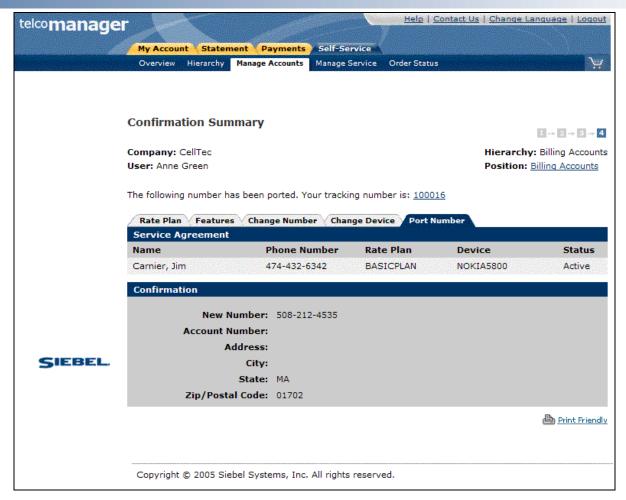


Figure 0-39 Port Number – Confirmation screen

Manage Service Use Cases

The following use cases cover the business requirements for enabling the existing business customer and CSR to manage services. The administrator can also perform these functions.

- Activate Service
- Suspend Service
- Resume Service
- Deactivate Service
- Change Voicemail Password
- Change Subscriber Profile

Activate Service

Name:	Activate service	
Brief Description:	Enables the business user to activate an individual service agreement (main path) or in bulk (alternate path).	
Actors:	Admin, Manager	
Main Path:	User selects Manage Service > Activate option. Step 1: Select service agreement	
	User optionally invokes the Search & Select use case to filter displayed service agreement's. [B2]	
	3. User selects a service agreement from the list and selects continue action.	
	Step 2: Enter DSN and reason for activation	
	4. System displays the selected service agreement details.	
	5. System prompts to enter DSN and reason for activation from the list below. [E2-E3] [B1]	
	a. Received phone from service provider	
	b. Received phone from another source.	
	6. User enters DSN, selects a reason and selects continue action.[A3]	
	Step 3: Verify	
	System displays the phone number and reason selected for verification.	
	8. User verifies and selects confirm action.	
	Step 4: Confirmation	
	System displays confirmation page with tracking number and an option to print the page for user records.	
	10. Use Case Ends.	

Alternate Paths: [A1] Bulk Change 1. User selects more than one service agreement to activate in bulk This alternate path is the same as the main path except that the Step 2 displays the multiple service agreements selected. [A2] DSN Default 1. If the service agreement has a DSN stored in Self Service Manager or if the service provider returns one with an interim request, this value is displayed in the DSN field. The user can accept or edit this value and follow the main path. [A3] Invalid DSN entry. 1. System displays an error message for invalid DSN entry. [E3] 2. System prompts to reenter ESN. [E2] **Standard Features:** 1. Cancel action 2. Back action 3. Paging action (number of lines configurable by use case) 4. Track service request **Exception Paths: [E1]** User encounters a system error: 1. System invokes **Error Message** use case. [E2] System prompts to re-enter ESN. 1. System populates the DSN from the user session. 2. System displays error message not valid for network. **Business Rules:** [B1] System does a basic validation on DSN (checks for empty string). The service provider should validate DSN and check device compatibility to activate online. [B2] System filters service agreement's using an additional filter and displays only service agreement's that are "INACTIVE". System uses an additional filter 'Status Type – Inactive' to display Notes: service agreements that are Inactive and enable the user to further filter service agreements using the following search by values: a. Phone Number b. Subscriber Last Name c. Rate Plan Group d. Device Type 2. The reasons displayed are configurable by the service provider. 3. Required Fields:



a. DSN

b. Reason for activation

The following are the B2B screen flows for Activate Service in bulk

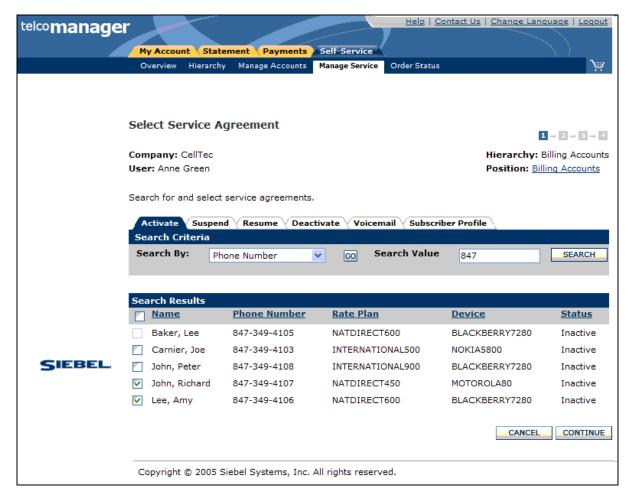


Figure 0-1 Sample selection screen for bulk changes

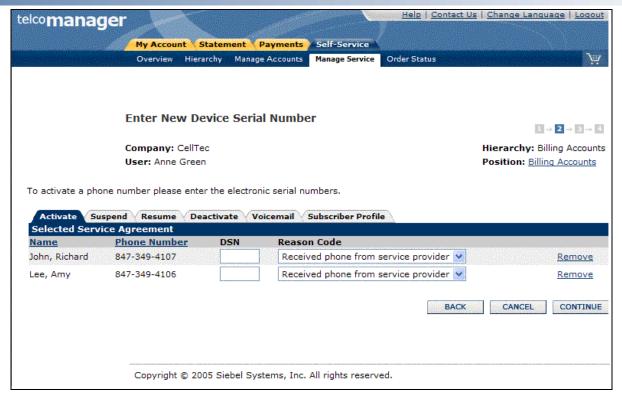


Figure 0-2 Sample screen to input ESN

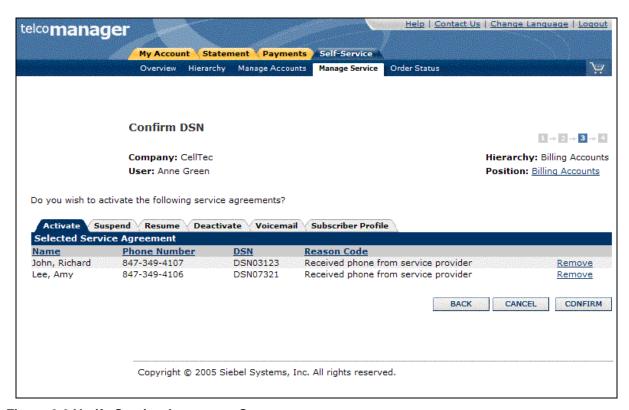


Figure 0-3 Verify Service Agreement Screen

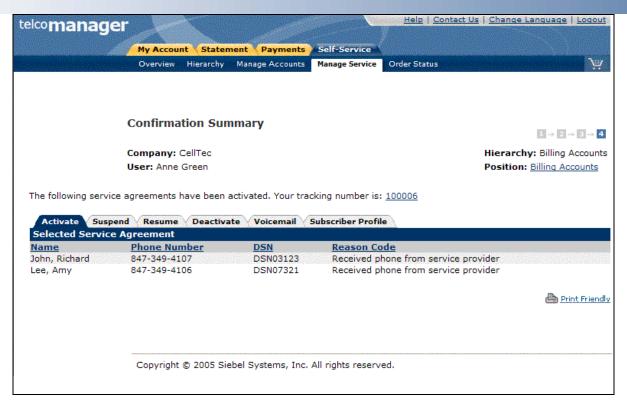


Figure 0-4 Activate Service Agreement Confirmation Screen

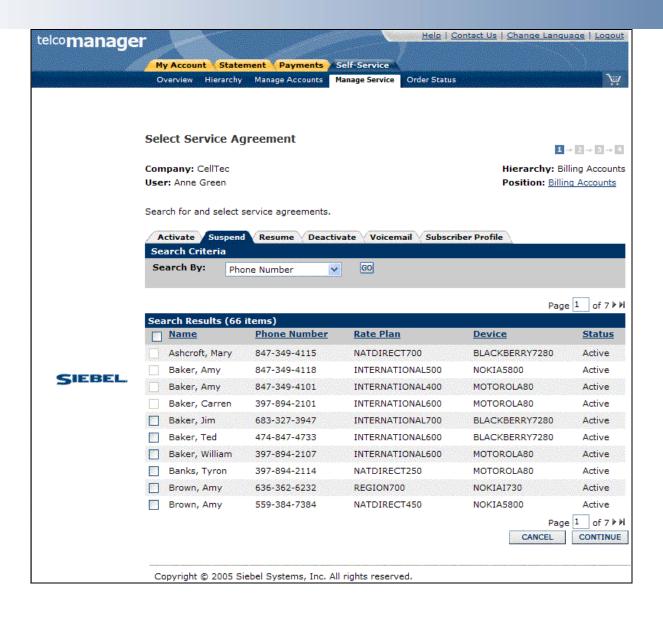
Suspend Service

Name:	Suspend service
Brief Description:	Enables the business user to suspend an individual service agreement and specify an effective date
Actors:	Admin, Manager
Main Path:	User selects Manage Service > Suspend option.
	Step 1: Select service agreement
	User optionally invokes the Search & Select use case to filter displayed service agreement's. [B2]
	3. User selects a service agreement and selects continue action.
	Step 2: Select reason and date
	 System displays selected service agreement details and prompts to:
	Enter reason for suspension [Required] [B1]
	i) Equipment trouble
	ii) Missing or Stolen Equipment
	iii) Sold the Unit
	iv) Vacation
	a) Enter an effective date [Required].

	User selects a reason, enters an effective date and selects continue action.
	Step 4: Verify
	6. System displays the effective date to confirm.
	7. User verifies and selects confirm action.
	Step 5: Confirmation
	System displays confirmation page with tracking number and an option to print the page for user records.
	9. Use case ends.
Alternate Paths:	[A1] Bulk Change
	User selects more than one service agreement
	Alternate path is the same as the main path, except that multiple rows are displayed for each selected service agreement
Standard Features:	1. Cancel action
	2. Back action
	3. Paging action (number of lines configurable by use case)
	4. Track service request
Exception Paths:	[E1] User encounters a system error:
	1. System invokes Error Message use case.
Business Rules:	[B1] System populates reason based on reason codes based on the user login. User needs to provide reason to suspend each phone.
	[B2] System uses an additional filter and displays only service agreement's that are "ACTIVE".
Notes:	System uses an additional filter 'Status Type – Active' to display service agreements that are Active and enable the user to further filter service agreements using the following search criteria:
	a. Phone Number b. Subscriber Last Name c. Rate Plan Group d. Device Type 2. The reasons displayed are configurable by convice provider.
	The reasons displayed are configurable by service provider



The following are the B2B screen flows for Suspend Service in bulk.



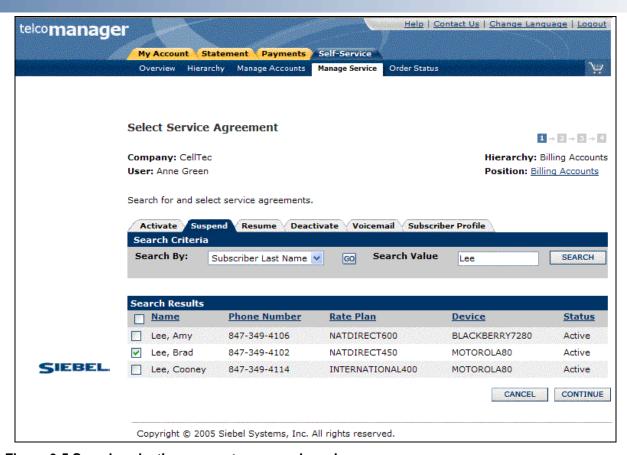
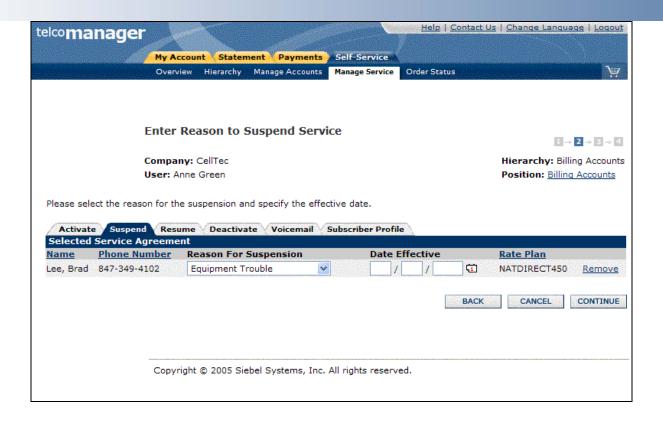


Figure 0-5 Sample selection screen to suspend service



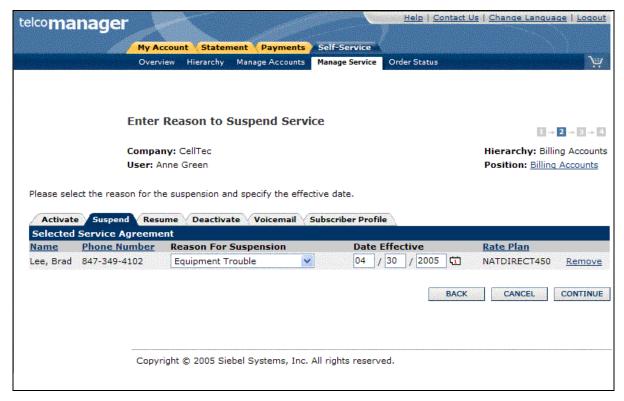


Figure 0-6 Screen to input a reason and effective date

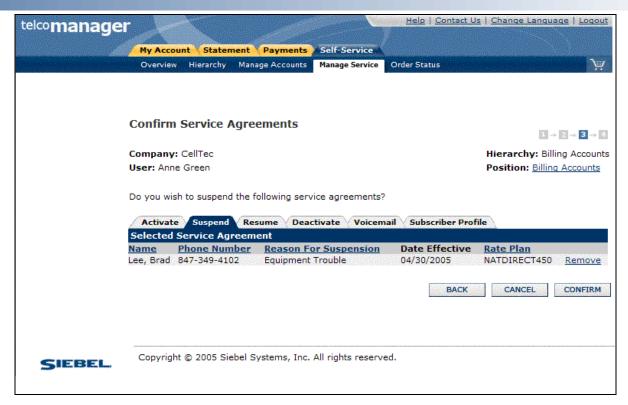


Figure 0-7 Verify status

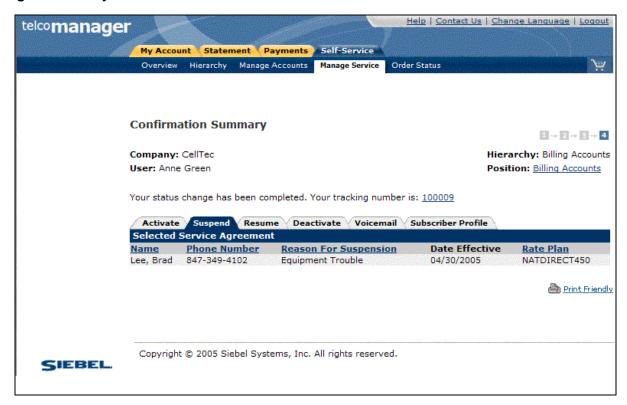


Figure 0-8 Confirm Service Agreements

Resume Service

Name:	Resume Service.		
Brief Description:	Enables the business user to resume service for an individual service agreement(main path) or bulk request for multiple service agreements (alternate path).		
Actors:	Admin, Manager		
Main Path:	User selects Manage Service > Resume option.		
	Step 1: Select service agreement		
	User optionally invokes the Search & Select use case to filter displayed service agreement's. [B1]		
	User selects a service agreement from the list and selects continue action.		
	Step 2: Verify		
	4. System displays service agreement details to confirm.		
	5. User verifies and selects confirm action.		
	Step3: Confirmation		
	System displays confirmation page with tracking number and an option to print the page for user records.		
	7. Use case ends.		
Alternate Paths:	[A1] Bulk Change		
	User selects more than one service agreement		
	Alternate path is the same as the main path, except that multiple rows are displayed for each selected service agreement		
Standard Features:	 Cancel action Paging action (number of lines configurable by use case) Track service request 		
Exception Paths:	[E1] User encounters a system error:		
	1. System invokes <u>Error Message</u> use case.		
Business Rules:	[B1] System filters service agreement's using an additional filter and displays only service agreement's that are "SUSPENDED".		
Notes:	System uses an additional filter 'Status Type –Suspended' and display service agreements that are Suspended and enable the user to further filter service agreements using the following search criteria: a. Phone Number b. Subscriber Last Name c. Rate Plan Group d. Device Type		
	 The reasons displayed are configurable by the service provider. 		
	2. The reasons displayed are configurable by the service provider.		



The following are the B2B screen flows for Resume Service in bulk.

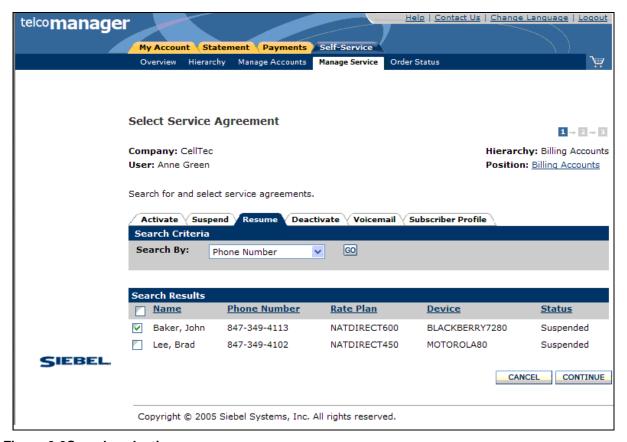


Figure 0-9Sample selection screen

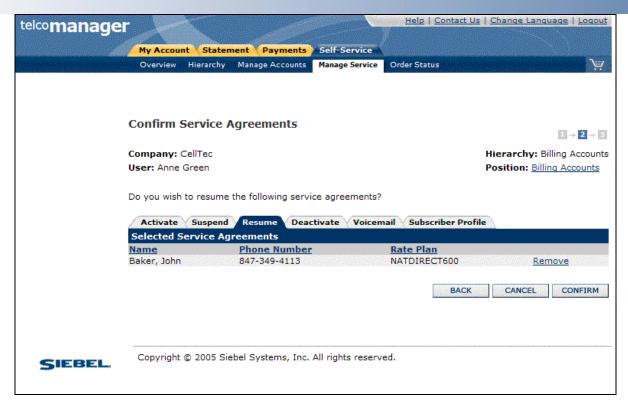


Figure 0-10 Verify status

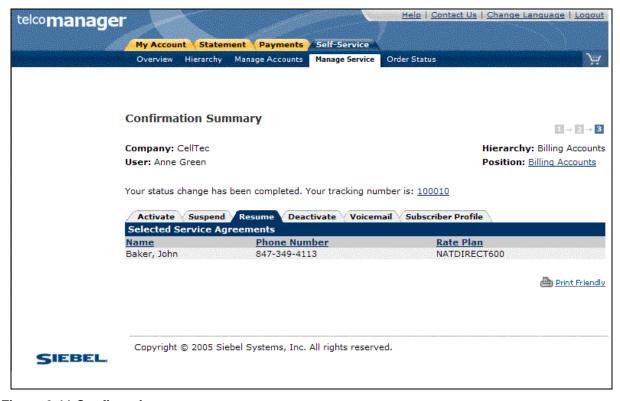


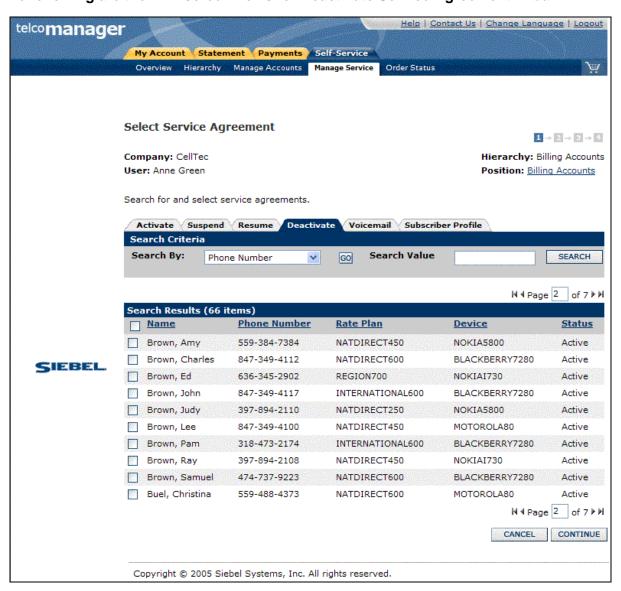
Figure 0-11 Confirmation screen

Deactivate Service

Name:	Deactivate Service
Brief Description:	Enables customer service representatives to deactivate service.
Actor:	CSR only
Main Path:	1. User selects Manage Service > Deactivate option. Step 1: Select service agreement 2. User optionally selects the Search & Select use case to filter displayed service agreement's 3. User selects a service agreement from the list and selects continue action. Step 2: Select or enter reason 4. System displays selected service agreement details and prompts to enter a reason for deactivation. [E1] a. Original DSN incorrect b. Phone being repaired c. Phone was stolen d. Account closed 5. User selects a reason and selects continue action. [A1] Step 3: Verify 6. System displays the service agreement to verify. 7. User verifies and selects confirm action. Step 4: Confirmation
	8. System deactivates number displays confirmation page with tracking number and an option to print the page for user records. 9. Use case ends.
Alternate Paths:	 [A1] Bulk Change 1. User selects more than one service agreement 2. Alternate path is the same as the main path, except that multiple rows are displayed for each selected service agreement
Standard Features:	 Cancel action Back action Paging action (number of lines configurable by use case) Track service request
Exception Paths:	[E1] User encounters a system error:1. System invokes Error Message use case.
Business Rules:	[B1] System filters service agreement's using an additional filter and displays only service agreement's that are "ACTIVE".
Notes:	The reasons displayed are configurable by service provider



The following are the B2B screen flows for Deactivate Service Agreement in bulk.



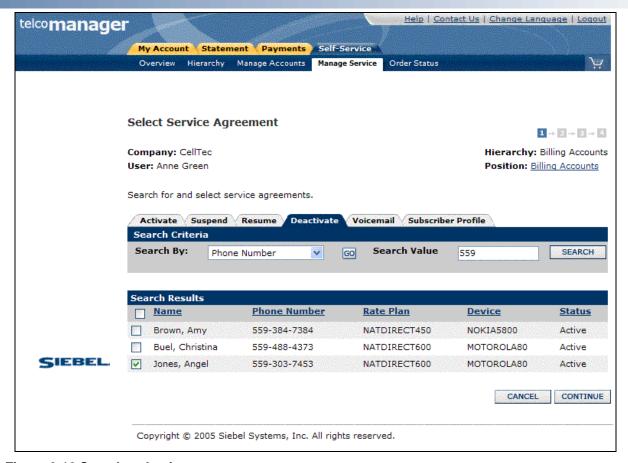


Figure 0-12 Sample selection screen

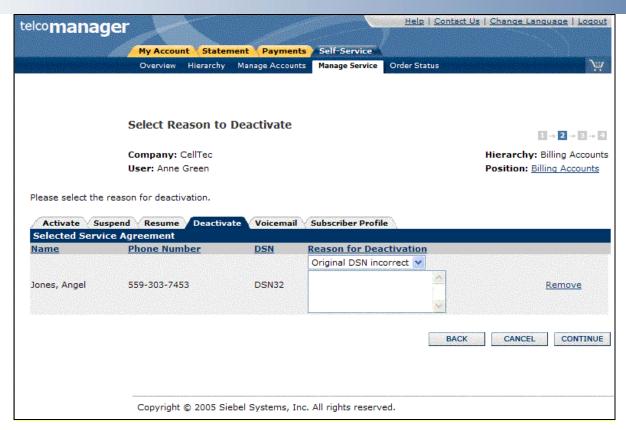


Figure 0-13 Sample screen to input a reason

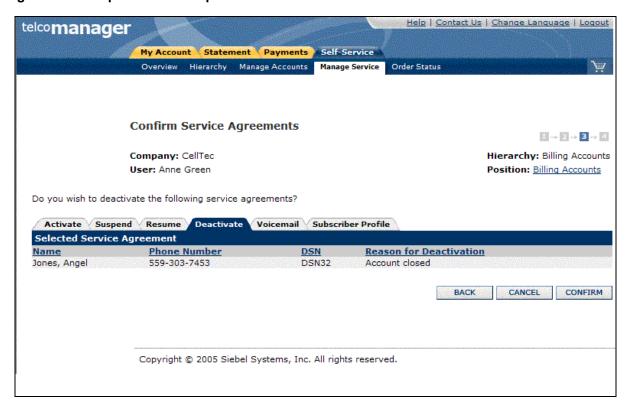


Figure 0-14 Deactivate flow – Verify service agreement screen

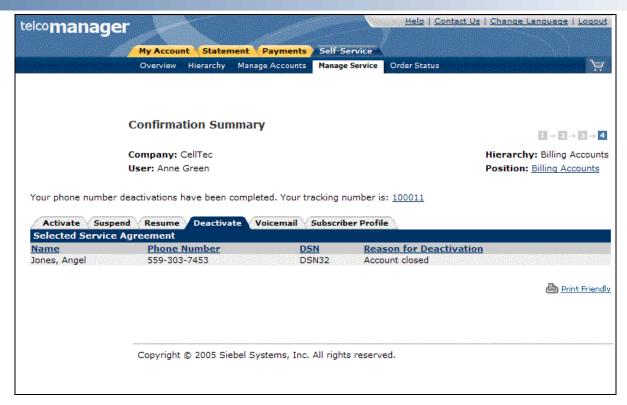


Figure 0-15Confirmation screen for deactivation

Change Voicemail Password

Name:	Change Voicemail Password
Brief Description:	Provides the ability for a business user to change voicemail password for an individual service agreement. User can enter new password or have the system generate one.
Actor(s):	Business User, Administrator, CSR
Main Path:	User selects Manage Service > Change Voicemail password option.
	Step 1: Select service agreement
	User optionally invokes the Search & Select use case to filter displayed service agreement's
	User selects a service agreement from the list and selects continue action.
	Step 2: Create Password
	System displays selected service agreement details along with following options:
	a. Please choose a password for me
	b. I wish to create my own password
	i) Password [Required]
	ii) Re-enter password [Required]
	5. User selects "I wish to create my own password" option
	a. User enters and re-enters password
	b. and selects continue action. [A1]
	Step 3: Verify Password
	6. System displays entered password for confirm.
	7. User verifies and selects confirm action.
	Step 4: Confirmation
	System displays confirmation message and tracking number with options to print the page for user records.
	9. Use case ends.
Alternate Paths:	[A1] Automatically generate password
Alternate Patris.	User selects: "Please choose a password for me" option and continue
	System displays automatically generated password on confirmation screen.
	[A2] User selects continue action without selecting an option to create password.
	System displays an error message and prompts to select an option and continue.

Standard Features:	1. Cancel action
	2. Back action
	3. Paging action (number of lines configurable by use case)
	4. Track service request
Exception Paths:	[E1] User encounters a system error:
	System invokes <u>Error Message</u> use case.
Business Rules:	[B1] Password Validation (configurable, default 4 digit number)
Notes:	



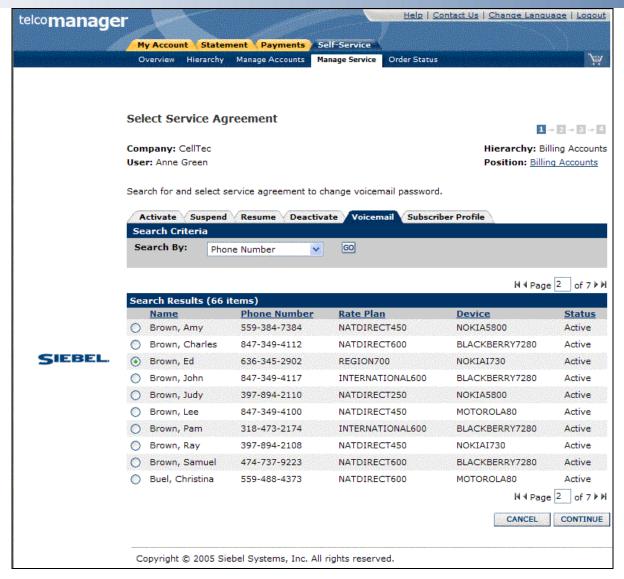


Figure 0-16 Selection Screen

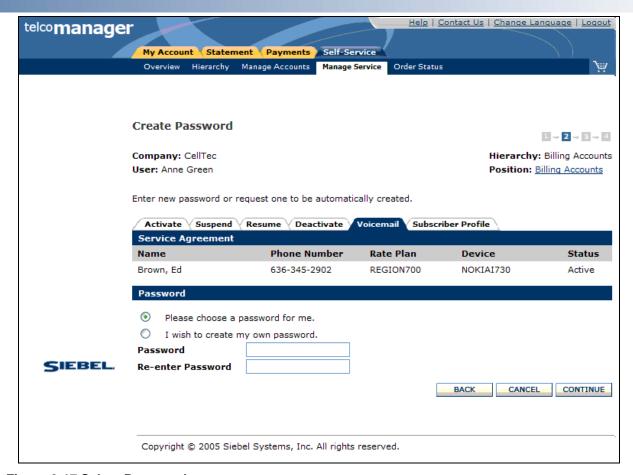


Figure 0-17 Select Password

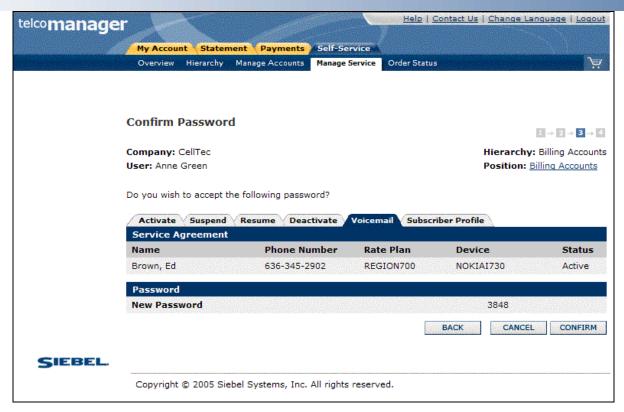


Figure 0-18 Verify screen displays system generated password

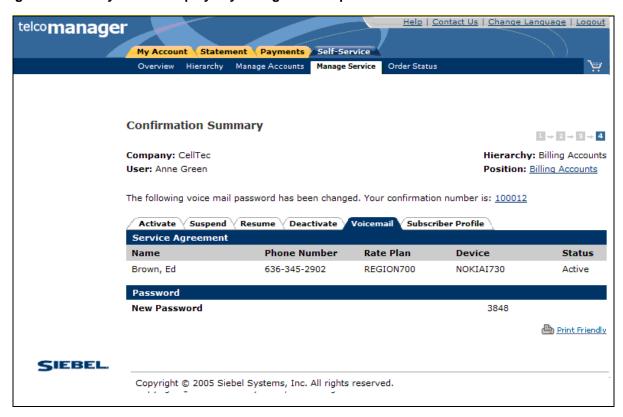


Figure 0-19 Confirmation Screen

Change Subscriber Profile

Name:	Change Subscriber Profile
Brief Description:	Provides the ability to the admin user to edit an individual service agreement's attributes such as subscriber's name and the primary point of usage (PPU) address.
Actor:	Administrator.
Main Path:	 User selects Manage Service > Subscriber Profile option. Step 1: Select service agreement User optionally invokes the Search & Select use case to filter displayed service agreement's. Admin user selects a service agreement and selects continue action. Step 2: Edit Subscriber details System displays edit subscriber profile screen including: First Name [Required] Last Name [Required] Subscriber Address (point of primary usage) Street Address City State Zip code (9 characters) E-mail Home Phone no Work Phone no - ext User enters details and selects continue action [A1] [E2] Step 3: Verify Changes System displays the changes to verify. User verifies and selects confirm action. Step 4: Confirmation System updates and displays confirmation message along with an option to print the page for user records. Use case ends.
Alternate Paths:	[A1] Invalid data entry System displays invalid warning message and prompts to re-enter the details.
Standard	Cancel action
Standard Features:	Cancel action Paging action (number of lines configurable by use case) Track service request
Exception Paths:	[E1] User encounters a system error:

	1. System invokes <u>Error Message</u> use case.
	[E2] System displays invalid data entry error message.
Business Rules:	[B1] Form validation
	[B2] System updates and caches the primary usage address to perform other bulk transactions based on this zip code (change rate plan).
Notes:	The PPU zipcode uses XXXXX – XXXX format. A valid 10 digit phone number uses NNN-NNN-NNNN format.



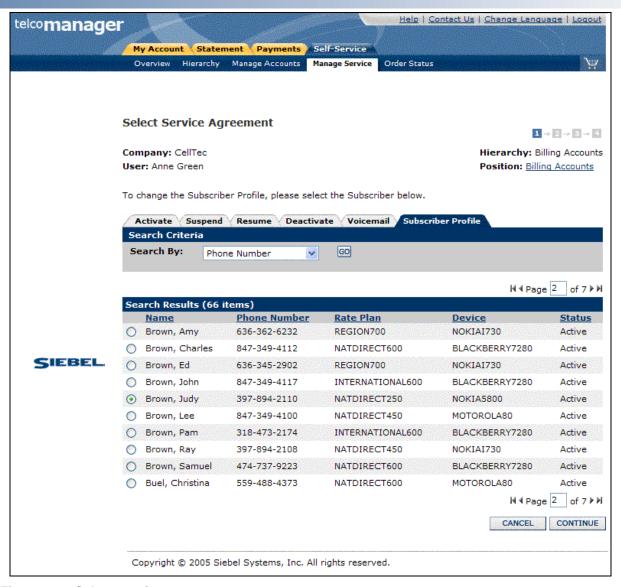


Figure 0-20 Select service agreement

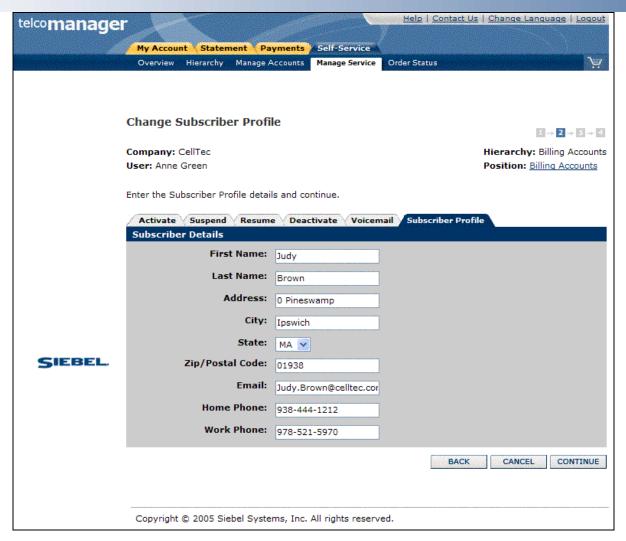


Figure 0-21 Edit Subscriber Details

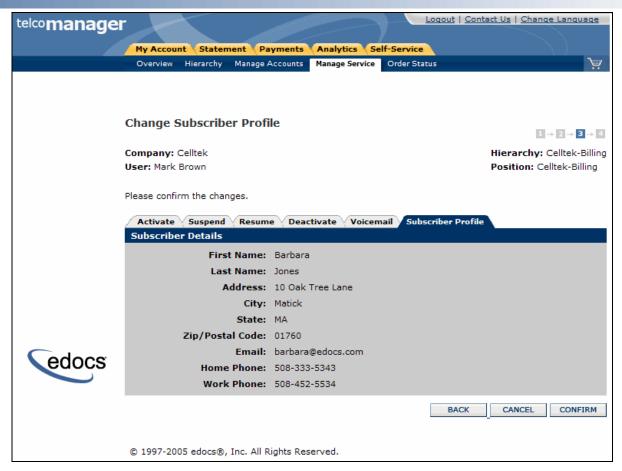


Figure 0-22 Verify changes

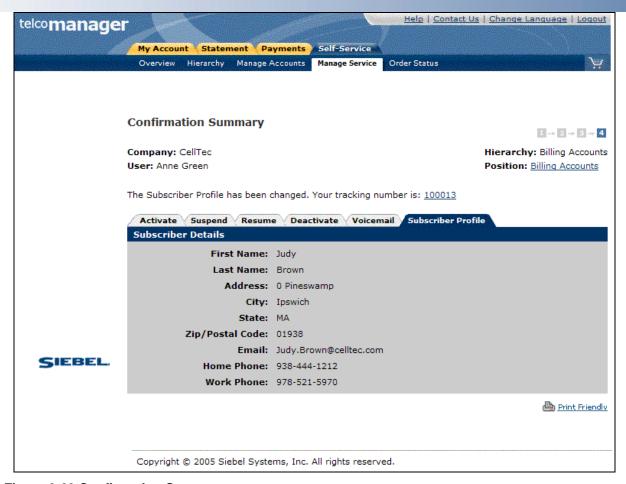


Figure 0-23 Confirmation Screen

Order Status Use Cases

The following use cases cover the business requirements for tracking service requests.

Order Status

Name:	Order Status.
Brief Description:	Enables the user to view transaction details of all service requests.
Actors:	CSR, Admin, Manager, Corporate/Subscriber User
Main Path:	User selects Order Status tab from the menu or a hyperlink from the overview page.
	2. Display Tracking Number [A1] [A2]
	System displays all service requests initiated within the last three months with the following attributes: [B1-B2]
	i) A separate column with " * " to identify group transactions
	ii) Tracking Number
	iii) Phone Number (aka MTN)
	iv) Date/Time
	v) Status (Service Request Status)
	vi) Description
	3. User selects tracking number
	4. System displays transaction details page, with a summary of
	a) Tracking Number
	b) Phone Number
	c) Date/Time
	d) Status (Service Request Status)
	e) Description
	Including one or more lines of state change history:
	i) Date/Time (of state change)
	ii) Source (whether event was initiated by the system or a user)
	iii) Status (Service Request Status)
	iv) Description/Comments
Alternate Paths:	[A1] Search – Common Filters
	User optionally uses the search facility to search for and filter tracking numbers.
	Enters values for one or more of the following search criteria
	i) Tracking Number (text box)
	ii) Status (Service Request Status - dropdown)

Service request status for individual transactions are as follows (note, this is not the status of a group transaction ID, but rather the status of any individual transaction within the group):

- (1) Pending
- (2) Success
- (3) Failed
- a) System displays all matching tracking numbers
 System uses match logic for text box fields (as "starts with" or "exact match" logic)
- b) User selects a tracking number and follows the main path.

[A2] Search – More Filters

This is identical to [A2] "Search – Common Filters" except the user selects the "Show More Filters" action to display these additional search filters.

- 1. Phone Number (text box)
- User (text box)
 Online user ID of the person who initiated the service request.
- Date range (from / to fields for calendar selection or direct entry)
- 4. Transaction Type (dropdown)
 Use case service request name

These filters can also be suppressed by selecting "Hide Filters".

[A3] Bulk order transaction tracking

Same as main path except

- Tracking numbers for bulk orders are visually differentiated (such as separate column with a "*"). Tracking status for group transactions are as follows:
 - i. Open-Pending (Request submitted , no transaction failed)
 - ii. Open-Mixed (Transactions Failed > = 1)
 - iii. Closed-Success (All Success)
 - iv. Closed-Mixed (Transactions Failed >=1)
 - v. Closed-Failed (All Transactions Failed)
- a) Bulk numbers are returned in searches if any of their associated individual tracking numbers match the search criteria.
- b) Clicking on a bulk tracking order displays a screen of individual tracking numbers.
- c) Individual tracking number screen behaves the same as the main path except that the screen displays the bulk tracking number as a header to the individual tracking numbers and the ability to navigate back to the page where the bulk tracking number was an individual line.

Exception Paths:

[E1] User encounters a system error:

1. System invokes Error Message use case.

Business Rules: [B1] System displays all service transactions for service agreements to which the user has access in the hierarchy. Also setting the hierarchy position, narrows the scope to track service request for service agreements under the "set position" node in the hierarchy. [B2] System provides ability to sort the transactions displayed based on column header labels [B3] List of self-service transaction includes: a. Change Rate Plan b. Add/Delete features c. Change DSN d. Change phone number e. Port Number Activate service Suspend service g. Resume service Deactivate service i. Change Voicemail password k. Change Subscriber profile System displays all service requests initiated within the last three **Notes:** month (service provider configurable time period).

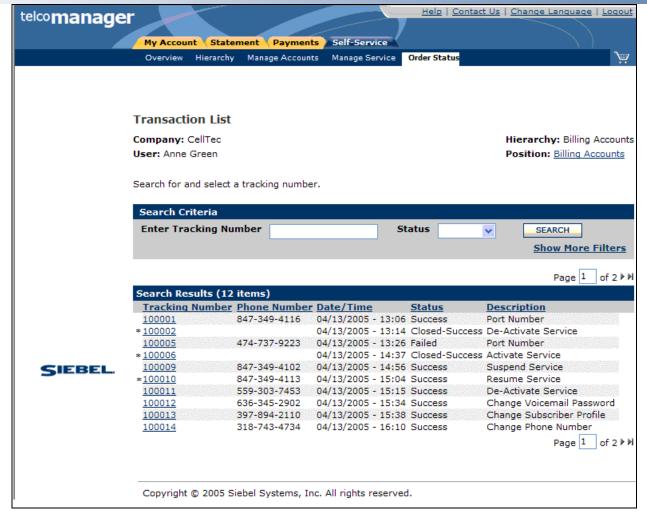


Figure 0-1 Order Status – service requests.

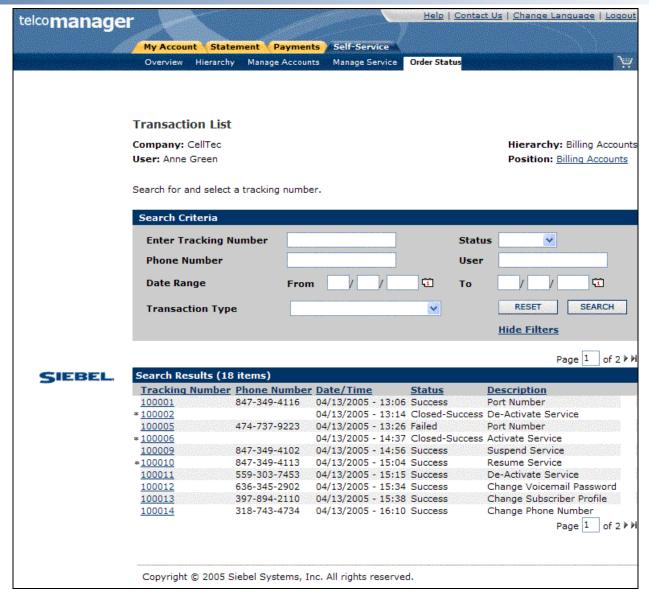
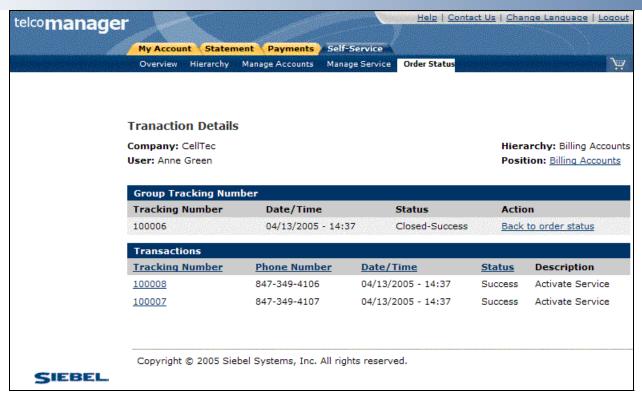


Figure 0-2 Order Status – Additional Filters



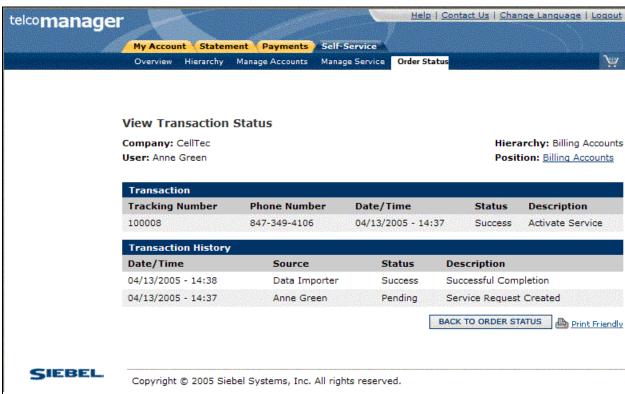


Figure 0-3 Sample status change history details page for group transaction

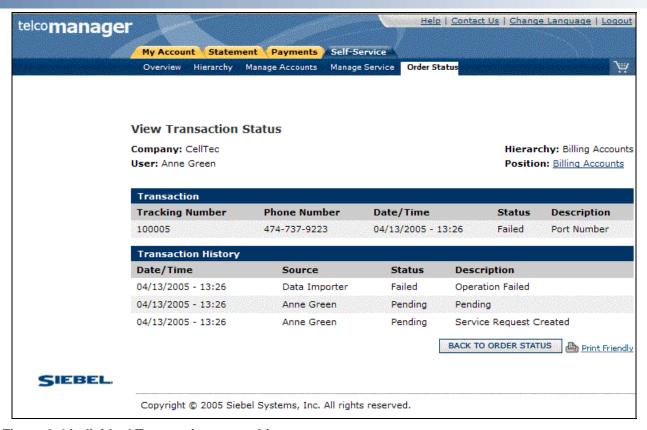


Figure 0-4 Individual Transaction status history page

Trouble Reports

Name:	Trouble Reports
Brief Description:	Enables customer to submit trouble reports for any service related issues.
Actors:	CSR, Admin
Main Path:	 Select Trouble Reports User accesses this screen from a link on the "Overview" page or from the message center option under the "contact us" or "Self Service Manager" menu options.
	2. System displays Trouble Reports page containing:
	a. Drop down list containing Message Categories
	b. Message name
	c. Message description
	User selects a Message Category from dropdown list [E1] [A1] [A2]
	4. User enters Message Name in text box [E2]
	5. User enters Description (full question) in text box [E3]
	6. User selects submit action. [A3]
	7. Order Status: Record written to the order status table

	8. System displays confirmation screen explaining that the message
	has been sent and references a tracking number.
Alternate Path:	[A1] User selects Message Category that is covered by an online service
	System displays pop-up box informing user that service can be ordered online with link to service page
	[A2] User selects link to online service
	System redirects user to service page.
Exception Paths:	[E1] User does not select a category:
	 System redisplays page with an error messages asking the user to select a category.
	[E2] User does not enter text for message name:
	System redisplay s page with an error messages asking the user to enter a message name
	[E3] User does not enter text for message:
	System redisplay s page with an error messages asking the user to enter a message
Notes	The categories displayed in the pull-down menu are: Select Category; List of Self-Service Transactions (from above use cases); Suggestions. These will be displayed in alphabetic order. The default should be Select Category.
	The category list displayed is configurable by the service provider.
Configuration Options	If the client purchases CSR Manager, the Trouble Reports functionality referenced here could be enhanced by interfacing it to the service provider's CSR Manager system and adding end user functionality to review message response and case history as well as reply, close, and reopen cases.

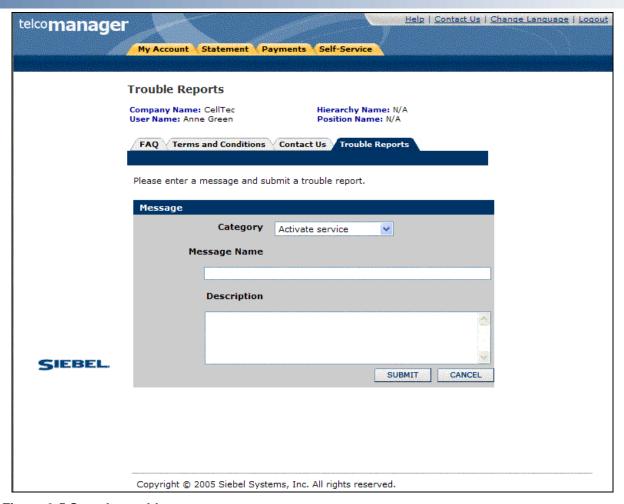


Figure 0-5 Sample trouble report screen

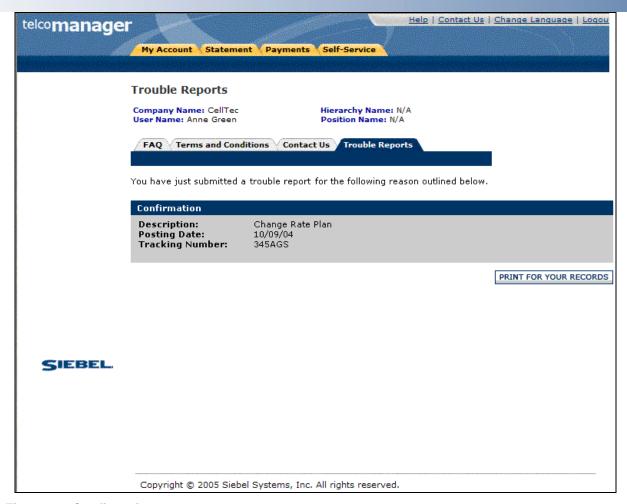
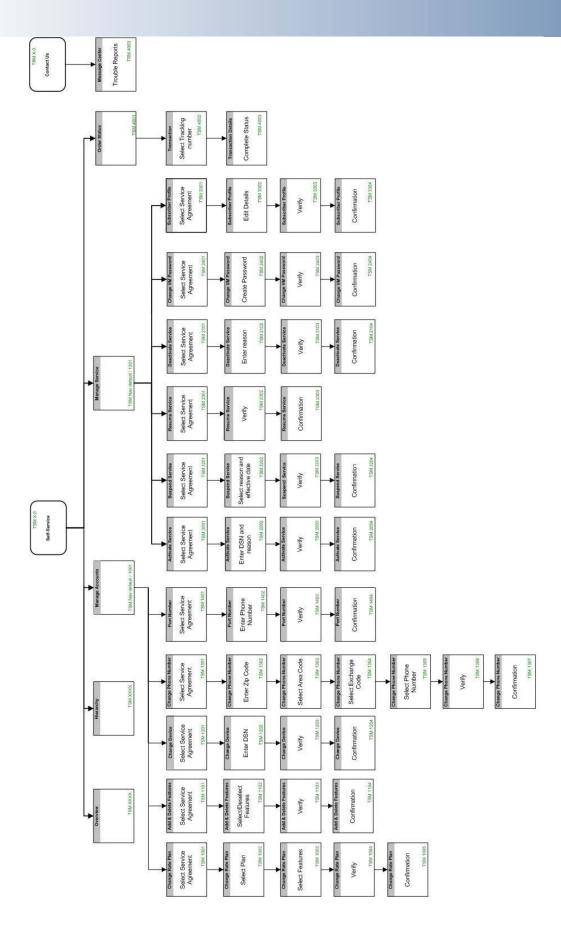


Figure 0-6 Confirmation screen

4 User Interface

Self Service Manager Site Map

The following page shows the site map for the 5.01 version of Self Service Manager.



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Figure 4.1 1 Self Service Manager Site Map

Compatibility Requirements

This section outlines requirements for the User Interface (UI) of the system. The solution will be compatible for the following browsers:

- IE 6 and above
- FireFox 0.9
- Netscape 7.2