



Telco Service Manager Application Guide

Business Edition

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edocs, Inc., One Apple Hill Dr., Natick, MA 01760

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1.1 Introduction to Telco Service Manager

The Business and Consumer Editions of edocs' Telco Service Manager enable 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 TSM application is built on the edocs' eXtensible Modular Architecture (XMA™). XMA is a J2EE platform developed for rapid deployment of industry specific Customer Self service and e-Billing applications. XMA offers multi-channel presentation, configurable business logic, real-time and batch integration, several data repositories, and system management tools.

1.1.1 edocs' 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, edocs' 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.

1.2 Problem Statement

Telco 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.

Telco customers typically change their service characteristics on a line by line basis, which makes the tasks difficult and time consuming to complete. Telco 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.

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

1.3 Application Benefits

TSM 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 telco service purchases because customer can use TSM as their preferred tool for consolidated management of their telco services.
 - Platform on which to up-sell new value added services by offering stepped pricing to a customer based on how much of TSM'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.

2. Confirms Appropriateness of Services and Usage:

Simplifies understanding how customers are using telco 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.

1.4 edocs Telco Manager Suite

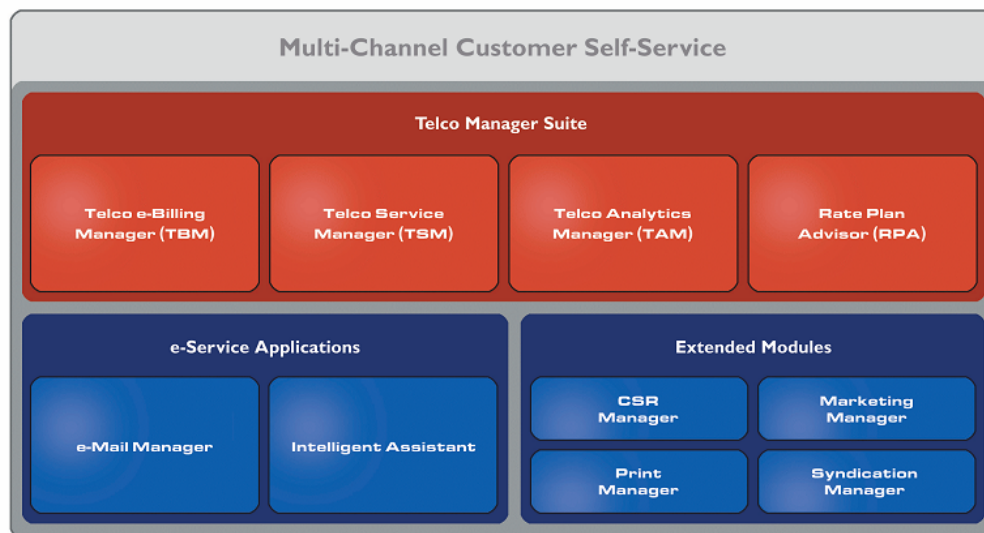
edocs *Telco Manager Suite* is a set of packaged software solutions designed specifically for the communications industry. These applications enable service providers to realize the full benefits of customer self service and e-Billing.

The suite includes a rich set of applications and functionality that give providers a complete multi-channel customer-self service capability. The suite includes packaged solutions for:

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

edocs solutions are packaged applications with sophisticated out-of-the-box capabilities. They can be tailored to meet specific customer requirements and business concerns, while establishing a solid platform for future business development.

The edocs Telco Manager Suite



The Suite includes the products described below.

1.4.1 Telco e-Billing Manager (TBM) – Business, Consumer, and Split Billing Editions

edocs Telco e-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. TBM Split Billing Edition contains powerful rules engines that “split ” business and personal calls or services allowing service providers to identify and recover personal usage charges by their employees.

1.4.2 Telco Service Manager (TSM) – Business and Consumer Editions

edocs Telco Service Manager enables business and consumer 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, order new products and services, and report and resolve problems. Business customers are able to complete these activities for individual employees, as well as company departments and divisions, across the entire organization.

1.4.3 Telco Analytics Manager (TAM) – Business Edition

edocs Telco 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.

1.4.4 Rate Plan Advisor (RPA) – Business and Consumer Editions

edocs 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, RPA 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 RPA to identify pre-churn subscribers, simulate new rate plans, and run predictive analytics.

1.5 e-Service Applications

Whether customers are visiting an organization's web site, communicating by email, or seeking to chat real-time with a CSR, edocs 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.

1.6 Extended Customer Service Modules

edocs 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. edocs 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

1.7 Overview

TSM is designed specifically for Telco 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 Telco Service Manager (TSM) 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 edocs' Telco Application Suite.

The main features of Telco 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 phone number, port a phone number from another carrier.
- **Manage Service** – Provides a customer with the ability to activate or deactivate a phone 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 phone 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.

1.7.1 What's New in Version 5.01?

This is the GA release for TSM – Service. 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, aka 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

TSM 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.

1.7.2 Hierarchy Overview

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

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 TSM 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.

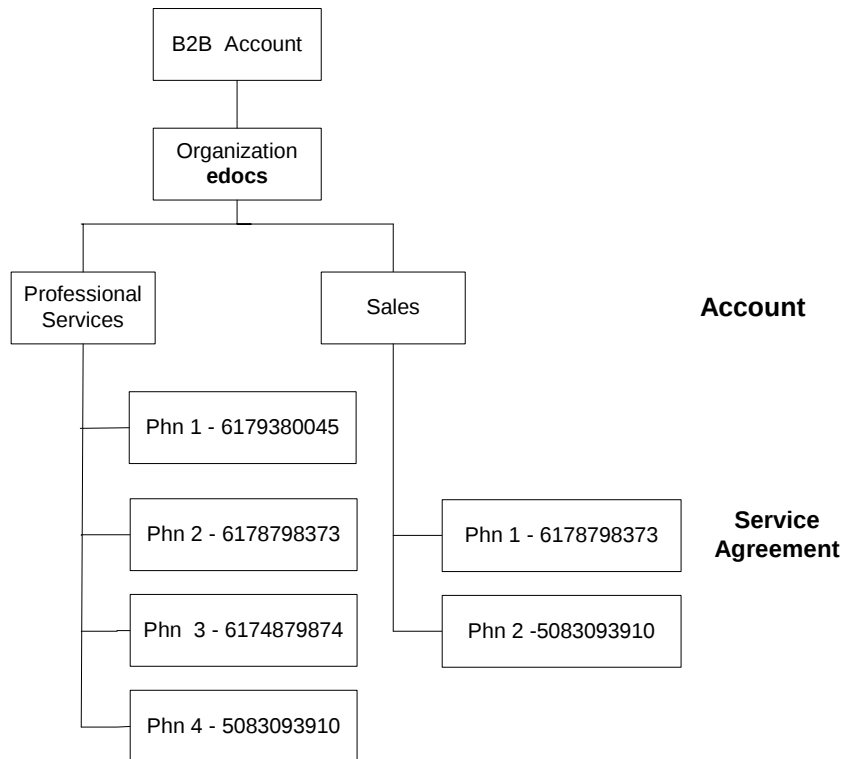


Figure 1.7-1 B2B Hierarchy Model

Enabled Hierarchy Functionality

The existence of these hierarchies enables the following TSM 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 TSM 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 Telco 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 TSM 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 TSM implementation.

2.1 Actors

ACTOR	EXAMPLE ROLES	NOTES
Administrator	Corporate Telco Manager View, Pay, Order, Approve, Manage hierarchy & Modify company profile	A Telco 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.

ACTOR	EXAMPLE ROLES	NOTES
B2B - Business User	View, Pay & Order	A Telco business customer responsible for managing accounts and ordering telecommunications device, rate plans and services.
B2B - Corporate Liable	View Only	A Telco business customer uses the B2B application to view their accounts and/or telecommunications devices.
B2B - Subscriber	View & Pay	A Telco business customer uses the B2B application to view and pay their accounts.
B2E - Subscriber	View, Pay and Order	A Telco business customer uses the B2B application to view their accounts and telecommunications devices and provide payment when necessary.
User	CSR	Customer Service Representative

2.2 General Use Cases

There are functions that appear on many pages throughout the TSM 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 TSM 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 TSM use cases and how the user can filter this list and select one or more service agreements.

2.2.1 Cancel

Name:	Cancel
Brief Description:	Describes the navigational experience when a Cancel action is selected.

Main Path:	1. User selects a Cancel action. 2. 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.

2.2.2 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 back action. 2. System returns User to the previous page [E1] 3. 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

2.2.3 Display Error Message

Name:	Display Error Message
Brief Description:	System redisplay page with an error message.
Main Path:	1. User performs an action that cannot be completed. 2. System determines required error actions. 3. System reads error message text from a configuration file. 4. System updates information on page as necessary. 5. 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

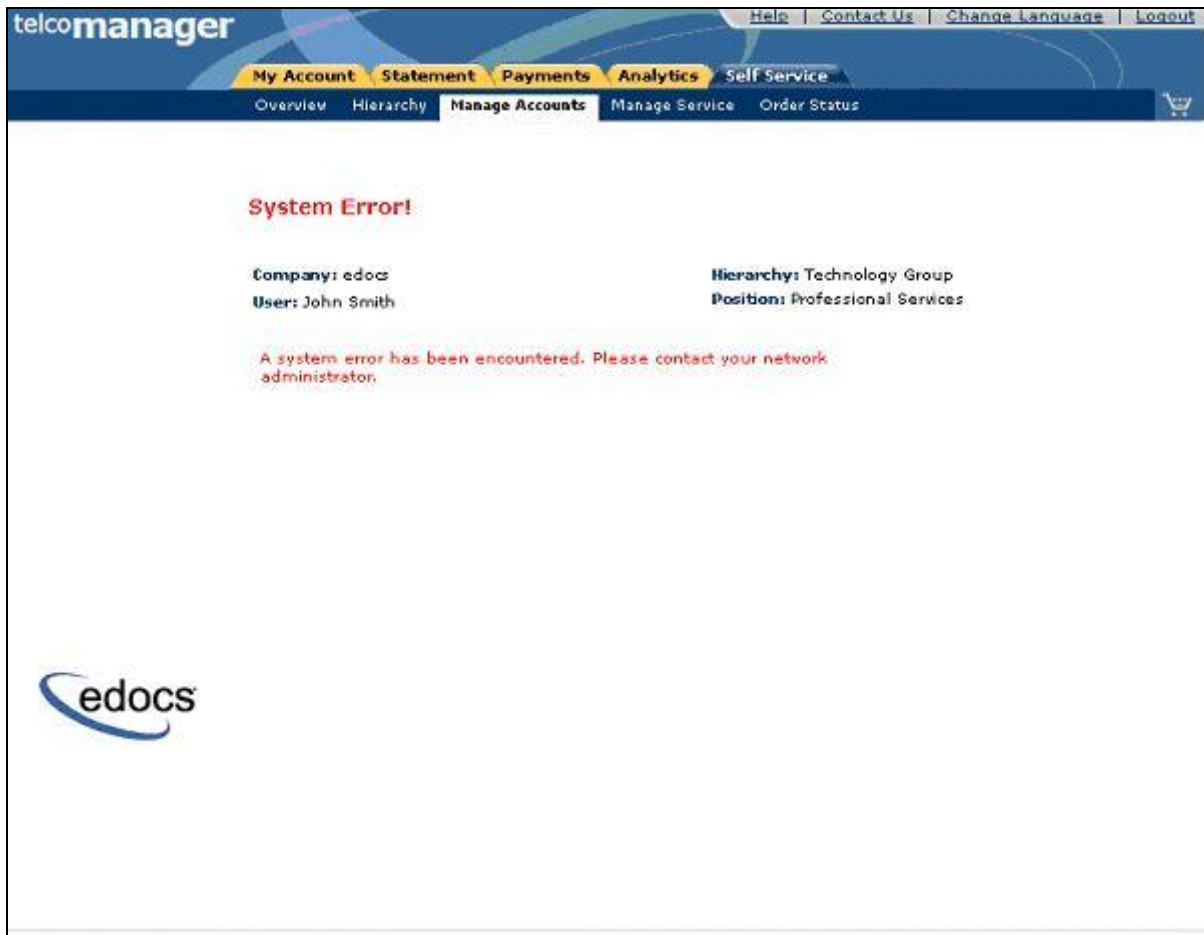


Figure 2.2-1 System Error Screen

2.2.4 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:	1. 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. 1. System returns the data on the inputted page number.
Exception Paths:	[E1] User encounters a system error: 1. 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

2.2.5 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:	1. User selects a sorting link (a column header that supports sorting) 2. System sorts the data in the table by the selected column in ascending order. 3. User selects the same sorting link. 4. System sorts the data in the table by the selected column in descending order. 5. User selects a different sorting link. 6. 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: 1. 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.

2.2.6 Printer Friendly Version

Name:	Printer Friendly Version
Brief Description:	A printer friendly version of the page is generated.
Main Path:	1. User selects Printer Friendly action. System redisplay the confirmation screen as follows: 1. Without HTML header or navigational elements except for Back to Application action on the top right hand corner. 2. Below the Back to Application link, the following text is added: "Should you experience any difficulty printing this page, please adjust your printer margin settings or set your layout setting to landscape." 2. User selects File>Print to print the page. 3. User browser displays a dialog box containing printing options. 4. User selects the Print action. [A1] 5. System prints the page without Back to Application action. [B2] 6. User selects the Back to Application action on the top. 7. System displays the page with HTML header and navigational elements. [E1] 8. Use Case Ends.
Alternate Paths:	[A1] User selects browser Cancel function: 1. System invokes Cancel use case.
Exception Paths:	[E1] User encounters a system error: 1. System invokes Error Message use case.
Business Rules:	[B1] If the data set is large causing paging to be enabled on the HTML view, the printer-friendly version will display the entire data set without paging. [B2] When printing a printer-friendly page, system must remove the Back to Application action on the top right hand corner.
Notes:	Uses standard browser printer function. Printer friendly functionality is available on all confirmation screens.

2.2.7 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 edocs hierarchy module used in conjunction with TSM. 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. <i>Rationale:</i> Selecting this position sets the scope of what service agreements are displayed for selection at the beginning of each TSM transaction. This list can be further filtered at the beginning of each of these TSM transactions.
Actors:	Admin, Manager
Entry Points	1. Hierarchy Tab Hierarchy and hierarchy position hyperlink on the top right of every screen.
Main Path:	1. Initial Display - 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. - The current position is highlighted (or root if none selected) and the properties are displayed in the left pane - 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 - From the hierarchy dropdown, the user selects from the list of billing and non-billing hierarchies to which the user has access. [B2] - Selects the go action - The selected hierarchy is displayed in the left pane. 3. Expand Tree - User expands nodes in order to navigate down into different branches of the tree. - User selects a new position in the hierarchy. [A2] - System refreshes the screen and displays the selected hierarchy node and sub level of the tree. - System displays the selected node details in the node properties window. 4. Set Position - User continues to navigate the tree, selects a folder, and selects Set Position action. [B2] - Message is displayed that the new hierarchy position has been set. - 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 TSM transaction the same hierarchy filter will be applied to the service agreements initially displayed in step 1.
Alternate Paths:	[A1] User selects Cancel action: 1. System invokes Cancel use case. [A2] 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 [A3] Old numbers visually differentiated and non-selectable When a phone number has been successfully changed in TSM, 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 TSM 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: 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 TSM (before performing a "set hierarchy position" action), the system will assume the default hierarchy as the billing hierarchy.

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | **Hierarchy** | Manage Accounts | Manage Service | Order Status

Manage Billing Accounts

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Billing Accounts | **Business Structures**

Hierarchy

Search Options
Celltek-Billing | Wireless Number |

Billing Accounts

- Celltek-Billing
 - 345
 - 456

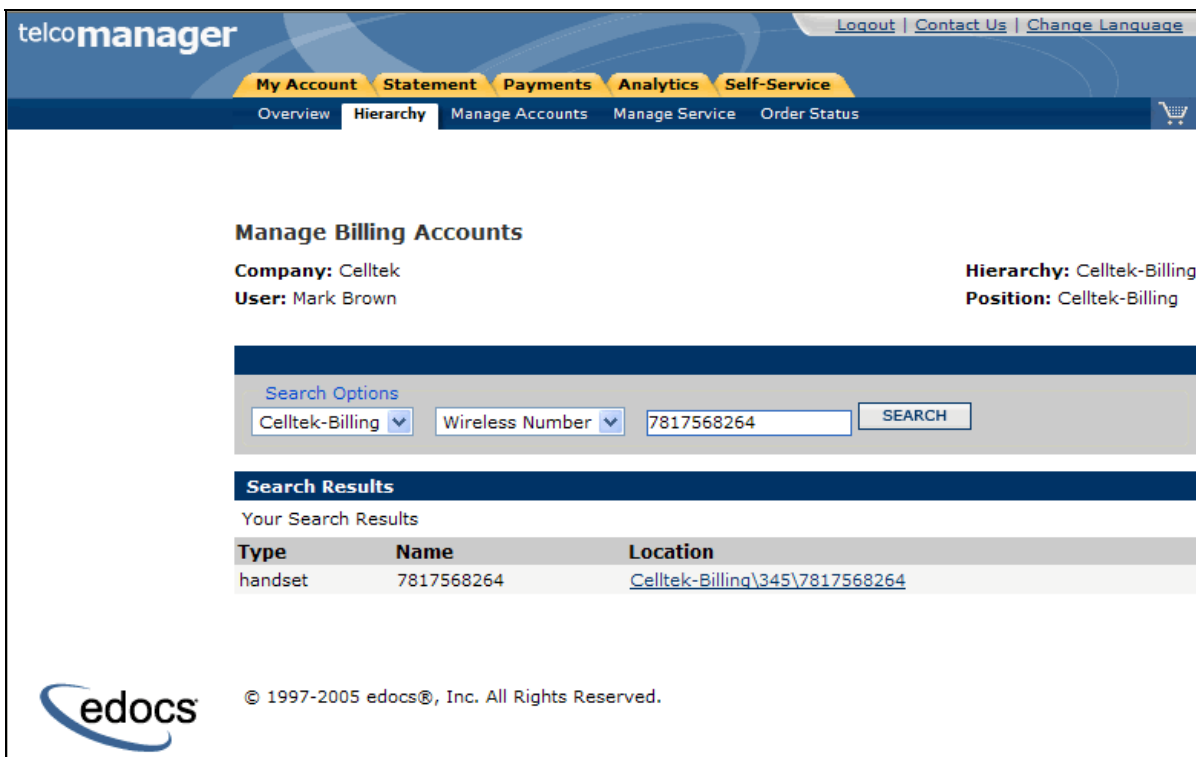
Celltek-Billing

Details | Users

Name: Celltek-Billing
Location:
Description:

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Figure 2.2-2 Set Hierarchy Position



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | **Hierarchy** | Manage Accounts | Manage Service | Order Status

Manage Billing Accounts

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search Options

Celltek-Billing Wireless Number 7817568264 **SEARCH**

Search Results

Your Search Results

Type	Name	Location
handset	7817568264	Celltek-Billing\345\7817568264

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Figure 2.2-3 Hierarchy search result screen

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My Account **Statement** **Payments** **Analytics** **Self-Service**

Overview **Hierarchy** Manage Accounts Manage Service Order Status

Manage Billing Accounts

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: 345

Billing Accounts **Business Structures**

Hierarchy

Search Options
Celltek-Billing Wireless Number

Billing Accounts

Celltek-Billing

- 345
 - 7817568063
 - 7817568264
 - 5087568264
 - 7817568010
 - 7817568011
 - 7817568012
 - 7817568013
 - 7817568014
 - 7817568015
 - 7817568016
 - 7817568017
 - 7817568018
 - 7817568019
 - 7817568020
 - 7817568021

345

Details **Users**

Name: 345
Location: Celltek-Billing\345
Description:

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Figure 2.2-4 Set hierarchy position confirmation screen

2.2.8 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 TSM use case and how the user can filter this list and select one or more service agreements. For all TSM use cases that have a workflow, this is step/screen 1.
Actor:	Administrator, CSR
Main Path:	1. Filtered service agreement's On the first screen of each TSM 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. 1. 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. 2. Each TSM 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. 1. Phone Number 2. Subscriber Last Name 3. Rate Plan Group 4. Device Type 5. 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. 1. Phone Number [text field] 2. Subscriber Last Name [text field] 3. 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: 1. Selects search to display all service agreements of the selected plan type. 2. Selects "Individual Rate Plan" option to display a drop down field of plan names associated with the previously selected rate plan group. User then selects a specific plan name and search to

	display all service agreements of the selected plan name. 3. Device Type [dropdown] 4. 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. <i>Note:</i> 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.

1. Add/Delete Features
2. Change Device
3. Change Phone Number
4. Port Number
5. 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:

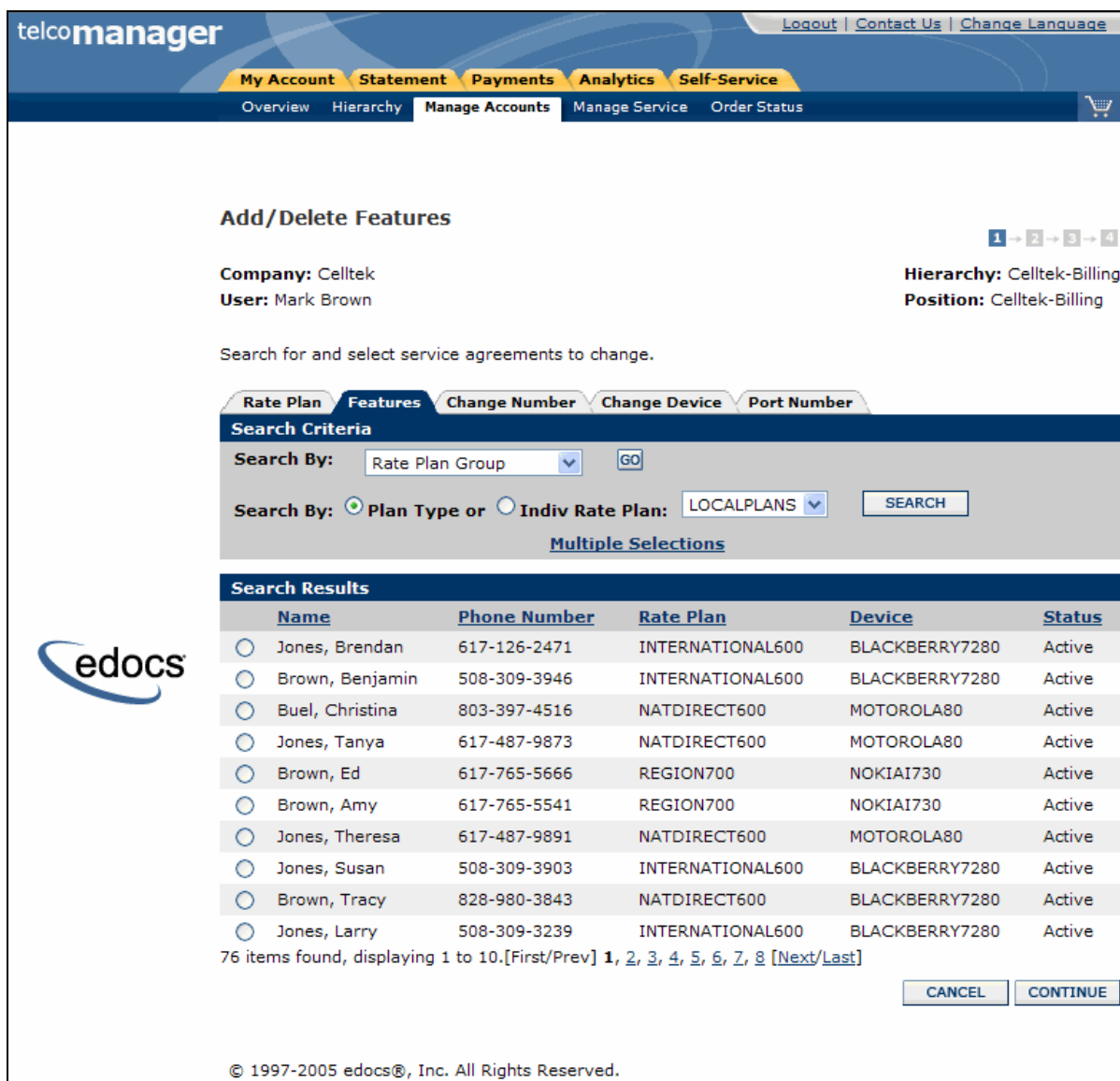
1. User selects more than one service agreement from more than one page.
2. At any point the user selects the continue button in step 2 to see the selected service agreements.
3. User can either
 - a. Select the remove action to remove any of the selected service agreements. This action should have the 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 in the current page. Rationale: Enables the user to select all service agreements with one action.
Exception Paths:	[E1] System displays “Search result not found” message. 1. 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:	1. 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.



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Add/Delete Features

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements to change.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Search By:

Search By: ☒ Plan Type or ☐ Indiv Rate Plan:

[Multiple Selections](#)

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☐	Jones, Brendan	617-126-2471	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Benjamin	508-309-3946	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Buel, Christina	803-397-4516	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Tanya	617-487-9873	NATDIRECT600	MOTOROLA80	Active
☐	Brown, Ed	617-765-5666	REGION700	NOKIAI730	Active
☐	Brown, Amy	617-765-5541	REGION700	NOKIAI730	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Susan	508-309-3903	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Tracy	828-980-3843	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Larry	508-309-3239	INTERNATIONAL600	BLACKBERRY7280	Active

76 items found, displaying 1 to 10. [First/Prev] [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#) [Next/Last]

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Figure 2.2-5 Search for Service Agreements based on plan type



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | **Manage Accounts** | [Manage Service](#) | [Order Status](#)

Add/Delete Features

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements to change.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Search By: Rate Plan Group [Hide Rate Plans](#)

Rate Plan Name: NATDIRECT600

[Multiple Selections](#)

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☐	Jones, Brian	617-487-9774	NATDIRECT600	MOTOROLA80	Active
☒	Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active
☐	Lee, Amy	847-349-4106	NATDIRECT600	BLACKBERRY7280	Active
☐	Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Priscilla	617-765-0066	NATDIRECT600	MOTOROLA80	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active
☐	Wood, John	508-309-3910	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Angel	803-397-3246	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Bryan	617-765-5671	NATDIRECT600	MOTOROLA80	Active

28 items found, displaying 1 to 10. [First/Prev] 1, 2, 3 [Next/Last]

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Figure 2.2-6 Search and select service agreement based on rate plans



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | **[Manage Accounts](#)** | [Manage Service](#) | [Order Status](#)

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Edit features and continue.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
NATDIRECT600	800	1000	1000	\$50.99

Included Features

Plan Features	Amount
WEEKENDMINUTES	Included
CALLWAITING	Included
CALLWAITING	Included
CALLFORWARDING	Included
CALLERID	Included
CALLFORWARDING	Included
VM	Included
CALLERID	Included
VM	Included
NIGHTMINUTES	Included

11 items found, displaying 1 to 10. [\[First/Prev\]](#) 1, 2 [\[Next/Last\]](#)

Optional Features

☐ Features	Amount
☐ THREEWAYCALLING	\$3.95
☐ TEXTMESSAGING500	\$5.95
☐ MULTIMEDIAMAIL	\$9.95
☐ VOICEDIAL	\$6.75
☐ MULTIMEDIAMAIL	\$9.95
☐ VOICEDIAL	\$6.75

8 items found, displaying all items. 1

[BACK](#) [CANCEL](#) [CONTINUE](#)

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Figure 2.2-7 Step 2, View Service Agreement Selected

2.3 Self service Overview Use Case

The TSM self service overview use case is addressed below.

2.3.1 B2B – Self service Overview

Name:	TSM self service.
Brief Description:	TSM 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: 1. User name, company name, hierarchy name and the current position in the hierarchy. 2. Displays new rate plans available. [A1] (Static image displayed to illustrate possible visions for how this screen could be used). 3. Top 5 Phone Numbers List of top 5 phone numbers with highest billings from most recent statement (from TBM overview screen) Column headers are "Number", "Last Bal", "Rate Plan". If the user clicks on any of the phone numbers, system invokes the "Change Rate Plan" use case with this service agreement selected. 4. 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). 5. Search bar, to track service request status. [A3] 6. Quick Links to the self-service actions. [A4] 7. Recent Service Requests [A5] 3. Use case ends.

Name:	TSM self service.
Alternate Paths:	[A1] User clicks on new rate plans links. 1. System displays static popup screen with an image of phones and the text "<service provider text here>" [A2] User enters tracking number and selects search action. 1. System invokes order status use case displaying the tracking number entered in the overview screen. [A3] User selects a quick link. 1. System invokes self service actions and corresponding use case. [A4] Recent Service Requests Count of submitted service transactions within the last month. <u>Fields Displayed</u> ◆ 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 <u>Service Transactions Displayed</u> ◆ 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:	[E2] User encounters a system error: 1. System invokes Error Message use case.
Business Rules:	[B3] The scope of the content in the dashboard depends upon the user (Administrator, Business or Subscriber) login..
Notes	Self-service tab in the TSM dashboard provides a quick link capability to B2B functionalities and other features of TSM.

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | [Hierarchy](#) | [Manage Accounts](#) | [Manage Service](#) | [Order Status](#)

Overview

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

New Rate Plan



800 minutes
\$65.95

Account Status

Number	Last Bal	Rate Plan
7817568047	\$203.45	RatePlan1000
7817568045	\$689.83	RatePlan800
7817568055	\$335.59	RatePlan800
7817568035	\$853.82	RatePlan800
7817568034	\$987.15	RatePlan800

Rate Plan Advisor

Run a Rate Plan Advisor & Save



Order Status

Tracking Number

Recent Service Requests

Description	Service Lines
Change Rate Plan	1

Quick Links

[Add/Delete Features](#)

[Activate Service](#)

[Change Rate Plan](#)

[Change Subscriber Profile](#)

[Port Number](#)

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Figure 2.3-1 Overview Screen for Admin User

2.4 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:

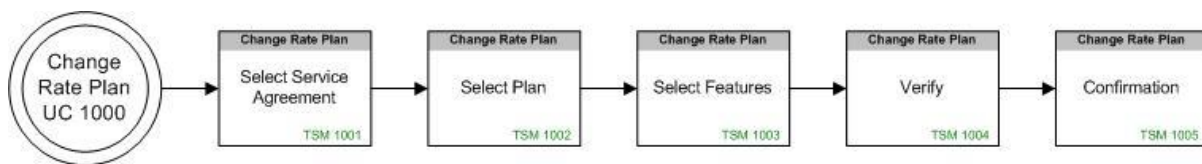
- **Change rate plan**
Provides ability for the administrator to change an individual rate plan (main path) or a bulk request for multiple service agreements (alternate path).
- **Add / Delete features**
Provides ability for the administrator to change an individuals rate plan features (main path) or 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.

2.4.1 Change Rate Plan

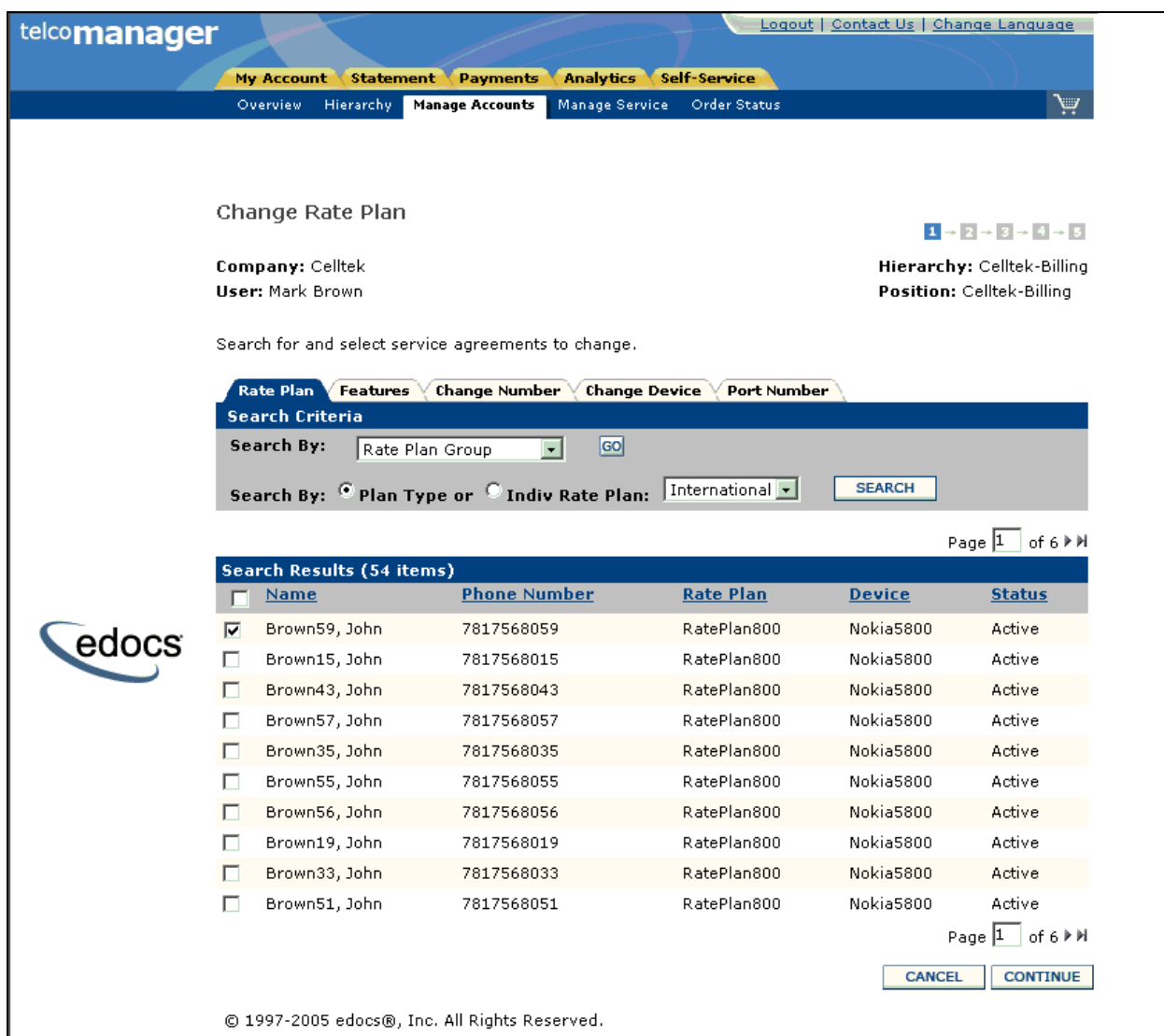
Name:	Change Rate Plan
Brief Description:	Provides ability for the administrator to change an individual rate plan (main path) or a bulk request for multiple service agreements (alternate path).
Actors:	Admin, Manager
Main Path:	1. User selects Manage Account > Change Rate Plan option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case (uc0060) to filter displayed service agreement's. 3. User selects a service agreement from the list and selects continue action. <u>Step 2: Select Plan</u> 4. System displays the selected service agreement, its rate plan, and its selected features. 5. User selects a new rate 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: 1. Plan Name 2. Peak Minutes 3. Weekend Minutes 4. Night minutes 5. Amount 7. User selects plan and continue action [A2] <u>Step 3: Select Features</u> 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. <u>Step 4: Verify Selections</u> 10. System displays the summary of : 1. selected rate plan and included features. 2. Selected optional features and the estimated total amount changes. 3. System allows the user to go back to the previous screen to edit the selection. 11. User verifies and selects confirm action. <u>Step 5: Confirmation</u> 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. 2. 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 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] 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. 1. Features that are included with the plan at no charge cannot be modified. 2. System allows to select optional features.
Notes	1. Devices not compatible to the selected plan and features are not affected. 2. System displays a non-monetary value for all the optional features.



Individual user flows for Change Rate Plan (as opposed to bulk)



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Rate Plan

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements to change.

Rate Plan | Features | Change Number | Change Device | Port Number

Search Criteria

Search By:

Search By: ☒ Plan Type or ☐ Indiv Rate Plan:

Page 1 of 6

Search Results (54 items)

☐	Name	Phone Number	Rate Plan	Device	Status
☒	Brown59, John	7817568059	RatePlan800	Nokia5800	Active
☐	Brown15, John	7817568015	RatePlan800	Nokia5800	Active
☐	Brown43, John	7817568043	RatePlan800	Nokia5800	Active
☐	Brown57, John	7817568057	RatePlan800	Nokia5800	Active
☐	Brown35, John	7817568035	RatePlan800	Nokia5800	Active
☐	Brown55, John	7817568055	RatePlan800	Nokia5800	Active
☐	Brown56, John	7817568056	RatePlan800	Nokia5800	Active
☐	Brown19, John	7817568019	RatePlan800	Nokia5800	Active
☐	Brown33, John	7817568033	RatePlan800	Nokia5800	Active
☐	Brown51, John	7817568051	RatePlan800	Nokia5800	Active

Page 1 of 6

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Figure 2.4-1 Search and Select service agreement



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My Account | **Statement** | **Payments** | **Analytics** | **Self Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Rate Plan

1 → **2** → 3 → 4 → 5

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select a rate plan.

Rate Plan | Features | Change Number | Change Device | Port Number

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Brown59, John	781-756-8059	RatePlan800	Nokia 5800 XL	Active

Current Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
International	800	Unlimited	Unlimited	\$45.95

Included Features

Plan Features	Amount
Call Waiting	Included
Caller ID	Included
Voice Mail	Included

Optional Features

Features	Amount
3-way Calling	\$3.95
No Answer/Busy	\$2.95
TXT Messaging	\$3.95
Total	\$56.80

Search Criteria

Plan Type:

Rate Plans

	Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
☐	International	400	Unlimited	Unlimited	\$25.95
☐	International	500	Unlimited	Unlimited	\$29.95
☐	International	600	Unlimited	Unlimited	\$35.95
☐	International	700	Unlimited	Unlimited	\$39.95
☐	International	800	Unlimited	Unlimited	\$45.95
☒	International	900	Unlimited	Unlimited	\$49.95
☐	International	1000	Unlimited	Unlimited	\$59.95
☐	International	1100	Unlimited	Unlimited	\$69.95

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Figure 2.4-2 Displays users current plan and available rate plans

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Rate Plan

1 → 2 → 3 → 4 → 5

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Select optional features.

Rate Plan | Features | Change Number | Change Device | Port Number

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Brown59, John	781-756-8059	RatePlan800	Nokia 5800	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
International	900	Unlimited	Unlimited	\$49.95

Included Features

Plan Features	Amount
Call Waiting	Included
Caller ID	Included
Voice Mail	Included

Optional Features

Features	Amount
☒ 3-way Calling	\$3.95
☐ 411-Connect	\$1.95
☒ No Answer/Busy	\$2.95
☒ TXT Messaging	\$3.95
☐ Call Forwarding	\$2.95

BACK CANCEL CONTINUE

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Figure 2.4-3 Select optional features

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Rate Plan

1 → 2 → 3 → 4 → 5

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please verify changes. Devices that are not compatible with the selected plan and features will not be affected.

Rate Plan | Features | Change Number | Change Device | Port Number

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Brown59, John	781-756-8059	RatePlan800	Nokia 5800	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
International	900	Unlimited	Unlimited	\$49.95

Included Features

Plan Features	Amount
Call Waiting	Included
Caller ID	Included
Voice Mail	Included

Optional Features

Features	Amount
3-way Calling	\$3.95
No Answer/Busy	\$2.95
TXT Messaging	\$3.95
Estimated Cost Per Plan	\$60.80

BACK CANCEL CONFIRM

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Figure 2.4-4 Verify selected plan and features

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My Account | **Statement** | **Payments** | **Analytics** | **Self Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status 

Change Rate Plan

1 → 2 → 3 → 4 → **5**

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your change has been processed. Your tracking number is: [56784932](#)

Rate Plan | Features | Change Number | Change Device | Port Number

Selected Service Agreement				
Name	Phone Number	Rate Plan	Device	Status
Brown59, John	781-756-8059	RatePlan800	Nokia 5800	Active

Selected Plan				
Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
International	900	Unlimited	Unlimited	\$49.95

 **Included Features**

Plan Features	Amount
Call Waiting	Included
Caller ID	Included
Voice Mail	Included

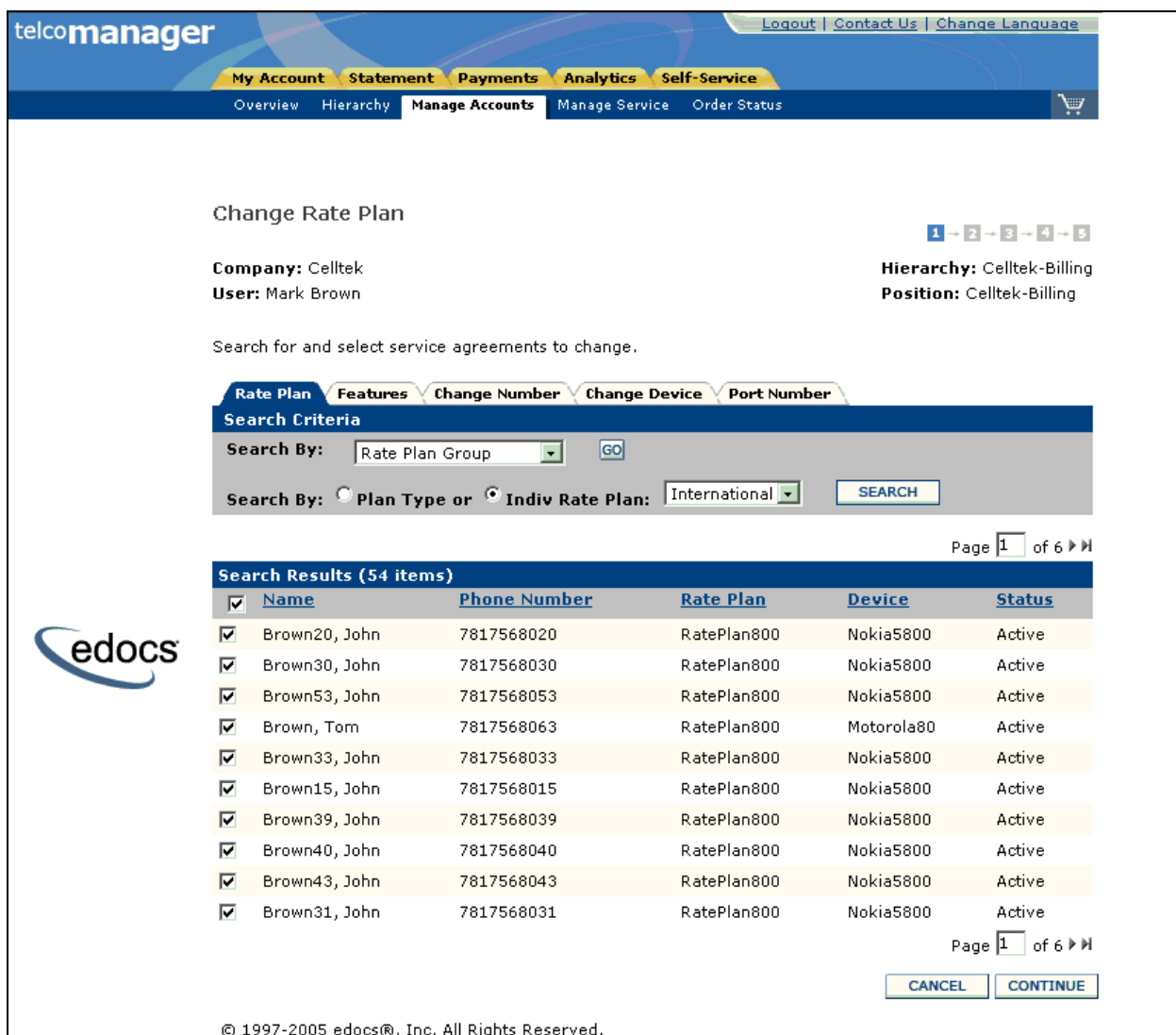
Optional Features	
Features	Amount
3-way Calling	\$3.95
No Answer/Busy	\$2.95
TXT Messaging	\$3.95
Estimated Cost Per Plan	\$60.80

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Figure 2.4-5 Confirmation screen

B2B screen flows for Change Rate Plan in bulk.



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My Account Statement Payments Analytics Self-Service

Overview Hierarchy **Manage Accounts** Manage Service Order Status

Change Rate Plan

1 → 2 → 3 → 4 → 5

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements to change.

Rate Plan Features Change Number Change Device Port Number

Search Criteria

Search By: Rate Plan Group GO

Search By: ☐ Plan Type or ☒ Indiv Rate Plan: International SEARCH

Page 1 of 6

Search Results (54 items)

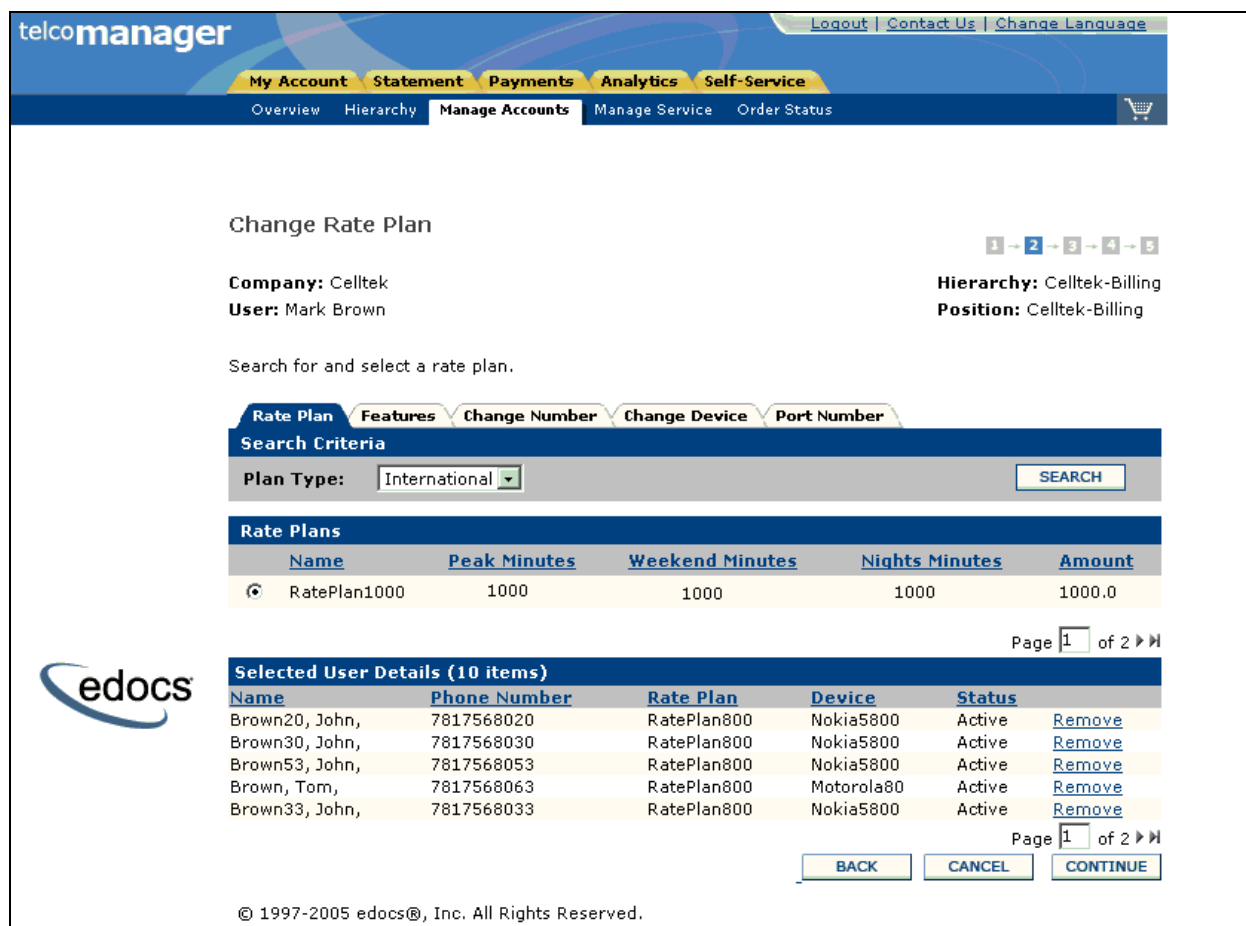
☒	Name	Phone Number	Rate Plan	Device	Status
☒	Brown20, John	7817568020	RatePlan800	Nokia5800	Active
☒	Brown30, John	7817568030	RatePlan800	Nokia5800	Active
☒	Brown53, John	7817568053	RatePlan800	Nokia5800	Active
☒	Brown, Tom	7817568063	RatePlan800	Motorola80	Active
☒	Brown33, John	7817568033	RatePlan800	Nokia5800	Active
☒	Brown15, John	7817568015	RatePlan800	Nokia5800	Active
☒	Brown39, John	7817568039	RatePlan800	Nokia5800	Active
☒	Brown40, John	7817568040	RatePlan800	Nokia5800	Active
☒	Brown43, John	7817568043	RatePlan800	Nokia5800	Active
☒	Brown31, John	7817568031	RatePlan800	Nokia5800	Active

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CANCEL CONTINUE

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Figure 2.4-6 User filters the list based on plan type, rate plan and select multiple service agreement



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Rate Plan

1 → 2 → 3 → 4 → 5

Company: Celltek
User: Mark Brown
Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select a rate plan.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Plan Type: International

Rate Plans				
Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
RatePlan1000	1000	1000	1000	1000.0

Page 1 of 2

Selected User Details (10 items)

Name	Phone Number	Rate Plan	Device	Status	
Brown20, John,	7817568020	RatePlan800	Nokia5800	Active	Remove
Brown30, John,	7817568030	RatePlan800	Nokia5800	Active	Remove
Brown53, John,	7817568053	RatePlan800	Nokia5800	Active	Remove
Brown, Tom,	7817568063	RatePlan800	Motorola80	Active	Remove
Brown33, John,	7817568033	RatePlan800	Nokia5800	Active	Remove

Page 1 of 2

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Figure 2.4-7 Screen displays the available rate plans

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Rate Plan

1 → 2 → **3** → 4 → 5

Company: Celltek
User: Mark Brown
Hierarchy: Celltek-Billing
Position: Celltek-Billing

Select optional features.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Current Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
RatePlan1000	1000	1000	1000	\$1000.0

Included Features

Plan Features	Amount
VoiceMail	Included

Optional Features

Features	Amount
☒ WeekendFreeMinutes	\$100.0

Page 1 of 2

Selected User Details (10 items)

Name	Phone Number	Rate Plan	Device	Status	
Brown20, John,	7817568020	RatePlan800	Nokia5800	Active	Remove
Brown30, John,	7817568030	RatePlan800	Nokia5800	Active	Remove
Brown53, John,	7817568053	RatePlan800	Nokia5800	Active	Remove
Brown, Tom,	7817568063	RatePlan800	Motorola80	Active	Remove
Brown33, John,	7817568033	RatePlan800	Nokia5800	Active	Remove

Page 1 of 2

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Figure 2.4-8 Screen displays selected plan with included and optional features



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | **[Manage Accounts](#)** | [Manage Service](#) | [Order Status](#)

Change Rate Plan

1 → 2 → 3 → **4** → 5

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please verify changes. Devices that are not compatible with the selected plan and features will not be affected.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Current Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
RatePlan1000	1000	1000	1000	\$1000.0

Included Features

Plan Features	Amount
VoiceMail	Included

Optional Features

Features	Amount
WeekendFreeMinutes	\$100.0

Estimated Cost Per Plan **\$1100.0**

Page 1 of 2 »

Selected User Details (10 items)

Name	Phone Number	Rate Plan	Device	Status	
Brown20, John,	7817568020	RatePlan800	Nokia5800	Active	Remove
Brown30, John,	7817568030	RatePlan800	Nokia5800	Active	Remove
Brown53, John,	7817568053	RatePlan800	Nokia5800	Active	Remove
Brown, Tom,	7817568063	RatePlan800	Motorola80	Active	Remove
Brown33, John,	7817568033	RatePlan800	Nokia5800	Active	Remove

Page 1 of 2 »

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Figure 2.4-9 Displays the summary of plan package



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[Overview](#) | [Hierarchy](#) | **[Manage Accounts](#)** | [Manage Service](#) | [Order Status](#)

Change Rate Plan

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your change has been processed. Your tracking number is: [127007](#)

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Current Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
RatePlan1000	1000	1000	1000	\$1000.0

Included Features

Plan Features	Amount
VoiceMail	Included

Optional Features

Features	Amount
WeekendFreeMinutes	\$100.0

Estimated Cost Per Plan **\$1100.0**

Page of 2 ▶▶

Selected User Details (10 items)

Name	Phone Number	Rate Plan	Device	Status
Brown20, John,	7817568020	RatePlan800	Nokia5800	Active
Brown30, John,	7817568030	RatePlan800	Nokia5800	Active
Brown53, John,	7817568053	RatePlan800	Nokia5800	Active
Brown, Tom,	7817568063	RatePlan800	Motorola80	Active
Brown33, John,	7817568033	RatePlan800	Nokia5800	Active

Page of 2 ▶▶

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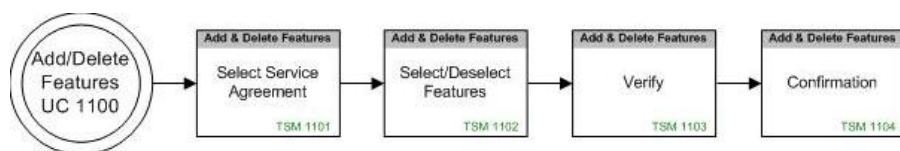
Figure 2.4-10 Confirmation screen displays rate plan change

2.4.2 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:	1. User selects Manage Account > Add/Delete features option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's. 3. User selects a service agreement from the list and selects continue action. <u>Step 2: Select/Deselect Features</u> 4. System displays the selected service agreement, its rate plan, included and optional features list with price details and the current selections checked. 5. User selects and deselects features and selects continue action.[B1] <u>Step 3: Verify selections</u> 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). 7. System also displays the estimated total amount changes for the plan based on the current selection. 8. User verifies and selects confirm action. <u>Step 4: Confirmation</u> 9. 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. <u>Step 1 : "Select Service Agreements"</u> 1. 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).

Name:	Add and delete features to the existing plan.
	2. User selects a rate plan name and 'continue' and is presented 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. 3. 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. 4. User selects multiple service agreements. Step 2 : "Select Features" screen displays the following <i>Instructional text:</i> "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. <i>Note</i>, 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. 1. Feature prices may or may not be displayed. 2. Feature radio buttons will be: a. All: if all selected service agreements have this feature b. Some: If only some service agreements have this feature. c. None: If no service agreements have this feature 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 transactions status should be "Partial Success". If this individual transaction is part of a bulk transaction, the bulk status should be "Closed-Success". The Service Agreement rate plan feature instance will only be updated with the features the service provider activates. 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. 1. 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. 1. 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:	1. Users 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)



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | **Manage Accounts** | [Manage Service](#) | [Order Status](#)

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreements to change.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Search By:

[Multiple Selections](#)

Search Results

	<u>Name</u>	<u>Phone Number</u>	<u>Rate Plan</u>	<u>Device</u>	<u>Status</u>
☐	Jones, Brian	617-487-9774	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active
☐	Lee, Amy	847-349-4106	NATDIRECT600	BLACKBERRY7280	Active
☐	Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Priscilla	617-765-0066	NATDIRECT600	MOTOROLA80	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active
☐	Wood, John	508-309-3910	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Angel	803-397-3246	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Bryan	617-765-5671	NATDIRECT600	MOTOROLA80	Active

28 items found, displaying 1 to 10. [First/Prev] **1**, **2**, **3** [Next/Last]

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Figure 2.4-11 Search for a service agreement



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Overview | **Hierarchy** | **Manage Accounts** | **Manage Service** | **Order Status**

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreements to change.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Plan Group: International **Plan Name:** NATDIRECT
[Single Selection](#)

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☐	Jones, Brian	617-487-9774	NATDIRECT600	MOTOROLA80	Active
☒	Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active
☐	Lee, Amy	847-349-4106	NATDIRECT600	BLACKBERRY7280	Active
☐	Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Priscilla	617-765-0066	NATDIRECT600	MOTOROLA80	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active
☐	Wood, John	508-309-3910	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Angel	803-397-3246	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Bryan	617-765-5671	NATDIRECT600	MOTOROLA80	Active

28 items found, displaying 1 to 10. [First/Prev] **1**, **2**, **3** [Next/Last]

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Figure 2.4-12 Select a service agreement



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[Overview](#) | [Hierarchy](#) | **Manage Accounts** | [Manage Service](#) | [Order Status](#)

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Edit features and continue.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
NATDIRECT600	800	1000	1000	\$50.99

Included Features

Plan Features	Amount
WEEKENDMINUTES	Included
CALLWAITING	Included
CALLWAITING	Included
CALLFORWARDING	Included
CALLERID	Included
CALLFORWARDING	Included
VM	Included
CALLERID	Included
VM	Included
NIGHTMINUTES	Included

11 items found, displaying 1 to 10.[First/Prev] 1, 2 [Next/Last]

Optional Features

Features	Amount
☐ THREEWAYCALLING	\$3.95
☐ TEXTMESSAGING500	\$5.95
☐ MULTIMEDIAMAIL	\$9.95
☐ VOICEDIAL	\$6.75
☐ MULTIMEDIAMAIL	\$9.95
☐ VOICEDIAL	\$6.75

8 items found, displaying all items.1

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Figure 2.4-13 Screen displays selected plan and features

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Add/Delete Features

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please confirm changes. Devices that are not compatible with the selected features will not be affected.

Rate Plan | Features | Change Number | Change Device | Port Number

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
NATDIRECT600	800	1000	1000	\$50.99

Included Features

Plan Features	Amount
WEEKENDMINUTES	Included
CALLWAITING	Included
CALLWAITING	Included
CALLFORWARDING	Included
CALLERID	Included
CALLFORWARDING	Included
VM	Included
CALLERID	Included
VM	Included
NIGHTMINUTES	Included

11 items found, displaying 1 to 10.[First/Prev] 1, 2 [Next/Last]

Optional Features

Features	Amount
THREEWAYCALLING	\$3.95
TEXTMESSAGING500	\$5.95
VOICEDIAL	\$6.75
VOICEDIAL	\$6.75
Estimated Cost Per Plan	\$74.39

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Figure 2.4-14 Verification Screen



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | **[Manage Accounts](#)** | [Manage Service](#) | [Order Status](#)

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your change has been processed. Your tracking number is: [108038](#)

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Jones, Kristy	617-765-5610	NATDIRECT600	MOTOROLA80	Active

Selected Plan

Name	Peak Minutes	Weekend Minutes	Nights Minutes	Amount
NATDIRECT600	800	1000	1000	\$50.99

Included Features

Plan Features	Amount
WEEKENDMINUTES	Included
CALLWAITING	Included
CALLWAITING	Included
CALLFORWARDING	Included
CALLERID	Included
CALLFORWARDING	Included
VM	Included
CALLERID	Included
VM	Included
NIGHTMINUTES	Included

11 items found, displaying 1 to 10. [First/Prev] 1, 2 [Next/Last]

Optional Features

Features	Amount
THREEWAYCALLING	\$3.95
TEXTMESSAGING500	\$5.95
VOICEDIAL	\$6.75
VOICEDIAL	\$6.75
Estimated Cost Per Plan	\$74.39

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Figure 2.4-15 Confirmation Screen

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



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[Overview](#) | [Hierarchy](#) | **Manage Accounts** | [Manage Service](#) | [Order Status](#)

Add/Delete Features

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreements to change.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Plan Group: International **Plan Name:** RatePlan1000

[Single Selection](#)

Search Results

☐	Name	Phone Number	Rate Plan	Device	Status
☐	Jones, Brendan	617-126-2471	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Benjamin	508-309-3946	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Buel, Christina	803-397-4516	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Tanya	617-487-9873	NATDIRECT600	MOTOROLA80	Active
☐	Brown, Ed	617-765-5666	REGION700	NOKIAI730	Active
☐	Brown, Amy	617-765-5541	REGION700	NOKIAI730	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Susan	508-309-3903	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Tracy	828-980-3843	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Larry	508-309-3239	INTERNATIONAL600	BLACKBERRY7280	Active

76 items found, displaying 1 to 10.[First/Prev] [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#) [\[Next/Last\]](#)

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Figure 2.4-16 User first filters by Rate Plan Name before further filtering and selecting service agreements

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Add/Delete Features

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements to change.

Rate Plan | Features | Change Number | Change Device | Port Number

Search Criteria

Plan Group: International Plan Name: RatePlan1000 [Edit](#)

Search By:: [Single Selection](#)

Search Results

☒	Name	Phone Number	Rate Plan	Device	Status
☒	Lee, Cooney	847-349-4114	INTERNATIONAL400	MOTOROLA80	Active
☒	Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active
☒	Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Active
☒	Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active

4 items found, displaying all items.1



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Figure 2.4-17 User selects multiple service agreements

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Add/Delete Features

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Edit whether feature is included in all, some, or none of the selected service agreements.

Rate Plan | Features | Change Number | Change Device | Port Number

Optional Features

Features	All	Some	None	Amount
3-way Calling	☒	☐	☐	\$3.95
411-Connect	☐	☐	☒	\$1.95
No Answer/Busy	☐	☒	☐	\$2.95
TXT Messaging	☒	☐	☐	\$3.95
Call Forwarding	☐	☐	☒	\$2.95



Selected User Details

Name	Phone Number	Rate Plan	Device	Status
Lee, Cooney	847-349-4114	INTERNATIONAL400	MOTOROLA80	Active Remove
Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active Remove
Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Active Remove
Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active Remove

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Figure 2.4-18 Sample screen displays current selections

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Add/Delete Features

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please verify changes. Devices that are not compatible with the selected features will not be affected.

Rate Plan | Features | Change Number | Change Device | Port Number

Optional Features

Features	All	Some	None	Amount
3-way Calling	☒	☐	☐	\$3.95
No Answer/Busy	☐	☒	☐	\$2.95
TXT Messaging	☒	☐	☐	\$3.95



Selected User Details

Name	Phone Number	Rate Plan	Device	Status
Lee, Cooney	847-349-4114	INTERNATIONAL400	MOTOROLA80	Active Remove
Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active Remove
Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Active Remove
Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active Remove

BACK | CANCEL | SUBMIT

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Figure 2.4-19 Verify screen displays current plan features and amount changes

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Add/Delete Features 1 → 2 → 3 → 4

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Your request has been submitted. Your tracking number is: [56784932](#)

Rate Plan | **Features** | Change Number | Change Device | Port Number

Optional Features

Features	All	Some	None	Amount
3-way Calling	☒	☐	☐	\$3.95
No Answer/Busy	☐	☒	☐	\$2.95
TXT Messaging	☒	☐	☐	\$3.95

Selected User Details

Name	Phone Number	Rate Plan	Device	Status
Lee, Cooney	847-349-4114	INTERNATIONAL400	MOTOROLA80	Active
Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active
Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Active
Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active

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Figure 2.4-20 Confirmation page displays selected features

2.4.3 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:	1. User selects Manage Account > Change Device option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's. 3. User selects a service agreement from the list and selects

	continue action. <u>Step 2: Enter New DSN</u> - System displays details for the selected service agreement including the current DSN and prompts the user to enter a new device ID. - User enters the DSN and selects continue action. [A2] <u>DSN Step 3: Verify</u> - User verifies and selects confirm action. <u>Step 4: Confirmation</u> - System displays a tracking number and confirmation message for DSN change with an option to print the page for user records. - Use case ends.
Alternate Paths:	[A1] Bulk Change - User selects more than one service agreement to change DSN. - This alternate path is the same as the main path except 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 DSN's are not recognized. Please enter new ones. - The system highlights invalid device IDs. - User either: - Enters new device IDs. - Selects the remove action for the service agreement(s) with the invalid IDs. - Selects continue
Standard Features:	- Cancel action - Back action - Paging action - Track service request
Exception Paths:	[E1] User encounters a system error: - 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. - 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 checks the network compatibility based on DSN. [B2] DSN validation – combination of Hex and Decimal characters [B3] System checks the current plan and support features of the device based on DSN.
Notes:	



B2B screen flows for Change Device use case in bulk.

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Device Serial Number (DSN)

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Search By: Subscriber Last Name **Search Value:** Brown

Search Results

☐	Name	Phone Number	Rate Plan	Device	Status
☐	Brown, Samuel	508-309-3246	NATDIRECT600	BLACKBERRY7280	Active
☒	Brown, Tom	397-894-2100	INTERNATIONAL600	MOTOROLA80	Active
☐	Brown, Pam	508-309-3209	INTERNATIONAL600	BLACKBERRY7280	Active
☒	Brown, Charles	847-349-4112	NATDIRECT600	BLACKBERRY7280	Active
☐	Brown, Beulah	508-309-3963	INTERNATIONAL600	BLACKBERRY7280	Active
☒	Brown, David	508-309-3966	INTERNATIONAL600	BLACKBERRY7280	Active
☒	Brown, George	508-309-3241	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Kenneth	508-309-3249	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Brown, Amy	617-765-5541	REGION700	NOKIAI730	Active
☒	Brown, Ed	617-765-5666	REGION700	NOKIAI730	Active

30 items found, displaying 1 to 10. [First/Prev] 1, 2, 3 [Next/Last]

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Figure 2.4-21 Select service agreements

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Device Serial Number (DSN)

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please enter a device serial number(s) you wish to change and click submit.

Rate Plan | Features | Change Number | **Change Device** | Port Number

Selected Service Agreement

Name	Phone Number	Current DSN	New DSN	RatePlan	
Brown, Tom	397-894-2100	DSN36	QR23225343434343	INTERNATIONAL600	Remove
Brown, Charles	847-349-4112	DSN08	QR3434543E353455	NATDIRECT600	Remove
Brown, David	508-309-3966	DSN68	QR3434543E353455	INTERNATIONAL600	Remove
Brown, George	508-309-3241	DSN71	QR3434543E353234	INTERNATIONAL600	Remove
Brown, Ed	617-765-5666	DSN58	QR343453E5342355	REGION700	Remove

5 items found, displaying all items.1



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Figure 2.4-22 User enters new device serial numbers

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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Device Serial Number (DSN)

1 → 2 → **3** → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please confirm changes.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Selected Service Agreement

Name	Phone Number	Current DSN	New DSN	RatePlan	
Brown, Tom	397-894-2100	DSN36	QR23225343434343	INTERNATIONAL600	Remove
Brown, Charles	847-349-4112	DSN08	QR3434543E353455	NATDIRECT600	Remove
Brown, David	508-309-3966	DSN68	QR3434543E353455	INTERNATIONAL600	Remove
Brown, George	508-309-3241	DSN71	QR3434543E353234	INTERNATIONAL600	Remove
Brown, Ed	617-765-5666	DSN58	QR343453E5342355	REGION700	Remove

5 items found, displaying all items.1



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Figure 2.4-24 Verify DSN change

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[Overview](#) | [Hierarchy](#) | [Manage Accounts](#) | [Manage Service](#) | [Order Status](#)

Change Device Serial Number (DSN)

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

The following DSN(s) have been changed. Your tracking number is: [108037](#)

[Rate Plan](#) | [Features](#) | [Change Number](#) | [Change Device](#) | [Port Number](#)

Selected Service Agreement				
Name	Phone Number	Current DSN	New DSN	RatePlan
Brown, Tom	397-894-2100	DSN36	QR23225343434343	INTERNATIONAL600
Brown, Charles	847-349-4112	DSN08	QR3434543E353455	NATDIRECT600
Brown, David	508-309-3966	DSN68	QR3434543E353455	INTERNATIONAL600
Brown, George	508-309-3241	DSN71	QR3434543E353234	INTERNATIONAL600
Brown, Ed	617-765-5666	DSN58	QR343453E5342355	REGION700

5 items found, displaying all items.1

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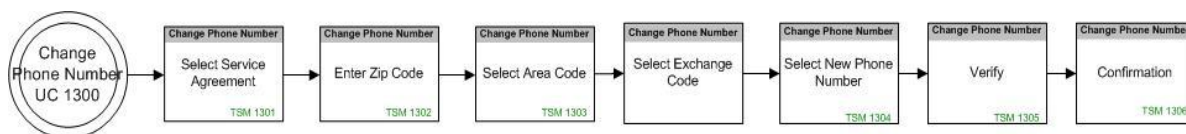
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Figure 2.4-25 Confirmation screen for DSN change

2.4.4 Change Phone Number

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:	1. User selects Manage Account > Change PHONE NUMBER option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's. 3. User selects an individual service agreement from the list and selects continue action. <u>Step 2: Enter Zip Code</u> 4. System displays selected service agreement details and prompts to enter zip code. 5. User enters billing or primary point of usage zip code and selects continue action. <u>Step 3: Select Area Code</u> 6. System displays list of area codes in a dropdown. 7. User selects an area code and selects continue action. <u>Step 4: Select Exchange Code</u> 8. System displays list of exchange codes in a dropdown. 9. User selects an exchange code and selects continue action. <u>Step 4: Select New Phone Number</u> 10. System displays a list of new numbers. [B1] 11. User selects a number and selects continue action. <u>Step 5: Verify Phone Number</u> 12. System displays selected number for verification. 13. User verifies and selects confirm action. [A4] <u>Step 6: Confirmation</u> 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 TSM so that they can not be selected.

	[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:	1. Cancel action 2. Back action 3. Paging action 4. Track service request
Exception Paths:	[E1] User encounters a validation error: 1. System invokes Error Message 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:	1. System displays 5 new phone numbers to the user. (Display list is configurable). 2. 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.



Following are the screen flows to Change phone number

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Overview Hierarchy **Manage Accounts** Manage Service Order Status

Change Phone Number

1 → 2 → 3 → 4 → 5 → 6 → 7

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreement to change.

Rate Plan **Features** **Change Number** **Change Device** **Port Number**

Search Criteria

Search By: Subscriber Last Name **Search Value:** Bak

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☐	Baker, Carren	397-894-2101	INTERNATIONAL600	MOTOROLA80	Active
☒	Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active
☐	Baker, Jim	617-561-2366	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Baker, Shelly	803-397-4513	INTERNATIONAL600	MOTOROLA80	Active
☐	Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active
☐	Baker, Ryan	617-345-3312	NATDIRECT600	BLACKBERRY7280	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Baker, Ted	617-938-0012	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Baker, Carren	397-894-2101	INTERNATIONAL600	MOTOROLA80	Active
☐	Baker, Ryan	617-345-3312	NATDIRECT600	BLACKBERRY7280	Active

16 items found, displaying 1 to 10. [First/Prev] 1, 2 [Next/Last]

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Figure 2.4-26 Change Phone Number – Select Service Agreement

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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Phone Number

1 → **2** → 3 → 4 → 5 → 6 → 7

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please enter Zip code for the new phone number.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Please enter Zip Code:

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Figure 2.4-27 Change Phone Number – Enter Zip Code

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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Phone Number

1 → 2 → **3** → 4 → 5 → 6 → 7

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please select the area code for the new phone number.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Zip code: 01760

Please select Area Code:

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Figure 2.4-28 Change Phone Number – Select Area Code

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Phone Number

1 → 2 → 3 → 4 → 5 → 6 → 7

Company: Celltek

User: Mark Brown

Hierarchy: Celltek-Billing

Position: Celltek-Billing

Please select the exchange code for your new phone number.

Rate Plan | Features | Change Number | Change Device | Port Number

Selected Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Zip code: 01760

Area code: 970

Please select Exchange Code:

973

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Figure 2.4-29 Select Exchange Code

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Phone Number

1 → 2 → 3 → 4 → 5 → 6 → 7

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please select a new phone number.

Rate Plan | Features | Change Number | Change Device | Port Number

Available Phone Numbers

☐ 970-973-1210
☐ 970-973-1211
☒ 970-973-1212
☐ 970-973-1213
☐ 970-973-1214

5 items found, displaying all items.1



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Figure 2.4-30 Select New Phone Number

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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Phone Number

1 → 2 → 3 → 4 → 5 → **6** → 7

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please confirm the new phone number.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Name	Old Number	New Number
Baker, Amy	847-349-4118	970-973-1212

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Figure 2.4-31 Confirm New Phone Number

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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Change Phone Number

1 → 2 → 3 → 4 → 5 → 6 → **7**

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your request has been successfully processed. Your tracking number is: [108037](#)

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Name	Old Number	New Number
Baker, Amy	847-349-4118	970-973-1212

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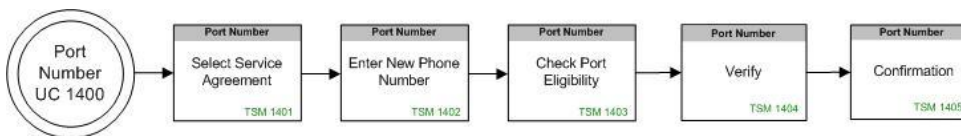
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Figure 2.4-32 Change Phone Number – Confirmation

2.4.5 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). <i>Rationale:</i> Port number enables the user to replace an existing number with a new number from different service provider.
Actors:	Admin, Manager
Main Path:	1. User selects Manage Account > Port Number option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's 3. User selects a service agreement from the list and selects continue action. <u>Step 2: Enter New Phone Number</u> 4. System displays the details for the selected service agreement including the current phone number and prompts the user to enter the following: 1. New Phone Number [validation: 10 numbers with optional separator characters] 2. Account Number [optional] 3. Address, State, City and Zip Code [optional] 5. User enters new number to port for the selected service agreement and selects the continue action. [E2 - E4] <u>Step 3: Check Port eligibility</u> 6. System validates and displays the number to port. [A2] <u>Step 4: Verify</u> 7. User verifies and selects confirm action. <u>Step 5: Confirmation</u> 8. 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 1. A warning message is displayed "The following numbers are not eligible to be ported. Please enter a new ones or remove the service agreements. 2. The system highlights ineligible numbers. 3. User either: a. Enters new number. b. Selects the remove action for the service agreement(s) with the invalid Ids. 4. 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 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:	1. System does not support to change to another existing number that they own within the same service provider.





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[Overview](#) | [Hierarchy](#) | **[Manage Accounts](#)** | [Manage Service](#) | [Order Status](#)

Select Service Agreement

Company: Celltek **Hierarchy:** Celltek-Billing

User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreements.

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Search Criteria

Search By: **Search Value**

Search Results

Name	Phone Number	Rate Plan	Device	Status
☒ Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active
☐ Jones, Barbara	508-309-3210	INTERNATIONAL600	BLACKBERRY7280	Active
☐ Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active
☐ Brown, Kenneth	508-309-3249	INTERNATIONAL600	BLACKBERRY7280	Active
☐ Brown, Charles	847-349-4112	NATDIRECT600	BLACKBERRY7280	Active
☐ Brown, Tom	397-894-2100	INTERNATIONAL600	MOTOROLA80	Active
☐ Jones, Eve	508-309-3943	INTERNATIONAL600	BLACKBERRY7280	Active
☐ Baker, Ted	617-938-0012	INTERNATIONAL600	BLACKBERRY7280	Active
☐ Baker, Jim	617-561-2366	INTERNATIONAL600	BLACKBERRY7280	Active
☐ Peter, Tom	617-281-5959	NATDIRECT600	BLACKBERRY7280	Active

76 items found, displaying 1 to 10. [First/Prev] [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#) [Next/Last]

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Figure 2.4-33 Search and select service agreements

Figure 2.4-34 Sample screen to input numbers to port in bulk

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please enter the number you wish to port.

Please enter a valid Phone Number

Rate Plan | Features | Change Number | Change Device | Port Number

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active

Edit Details

New Number:

313-675-335

Account Number:

001230444

Address:

10 Oak Tree Lane

City:

Natick

State:

MA

Zip/Postal Code:

01760

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Figure 2.4-35 Port Number – System error screen

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Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please enter the number you wish to port.

Rate Plan | Features | Change Number | Change Device | Port Number

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active

Edit Details

New Number: 313-675-3351

Account Number: 001230444

Address: 10 Oak Tree Lane

City: Natick

State: MA

Zip/Postal Code: 01760

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Do you wish to port the following number?

Rate Plan | Features | Change Number | Change Device | Port Number

Service Agreement				
Name	Phone Number	Rate Plan	Device	Status
Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active

Valid Number

New Number: 313-675-3351
Account Number: 001230444
Address: 10 Oak Tree Lane
City: Natick
State: MA
Zip/Postal Code: 01760

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Figure 2.4-36 Verify Phone Number



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Overview | Hierarchy | **Manage Accounts** | Manage Service | Order Status

Confirmation Summary

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

The following number has been ported. Your tracking number is: [108030](#)

Rate Plan | **Features** | **Change Number** | **Change Device** | **Port Number**

Service Agreement				
Name	Phone Number	Rate Plan	Device	Status
Virgo, Diego	397-894-2113	NATDIRECT600	MOTOROLA80	Active

Confirmation

New Number: 313-675-3351
Account Number: 001230444
Address: 10 Oak Tree Lane
City: Natick
State: MA
Zip/Postal Code: 01760



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Figure 2.4-37 Port Number – Confirmation screen

2.5 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

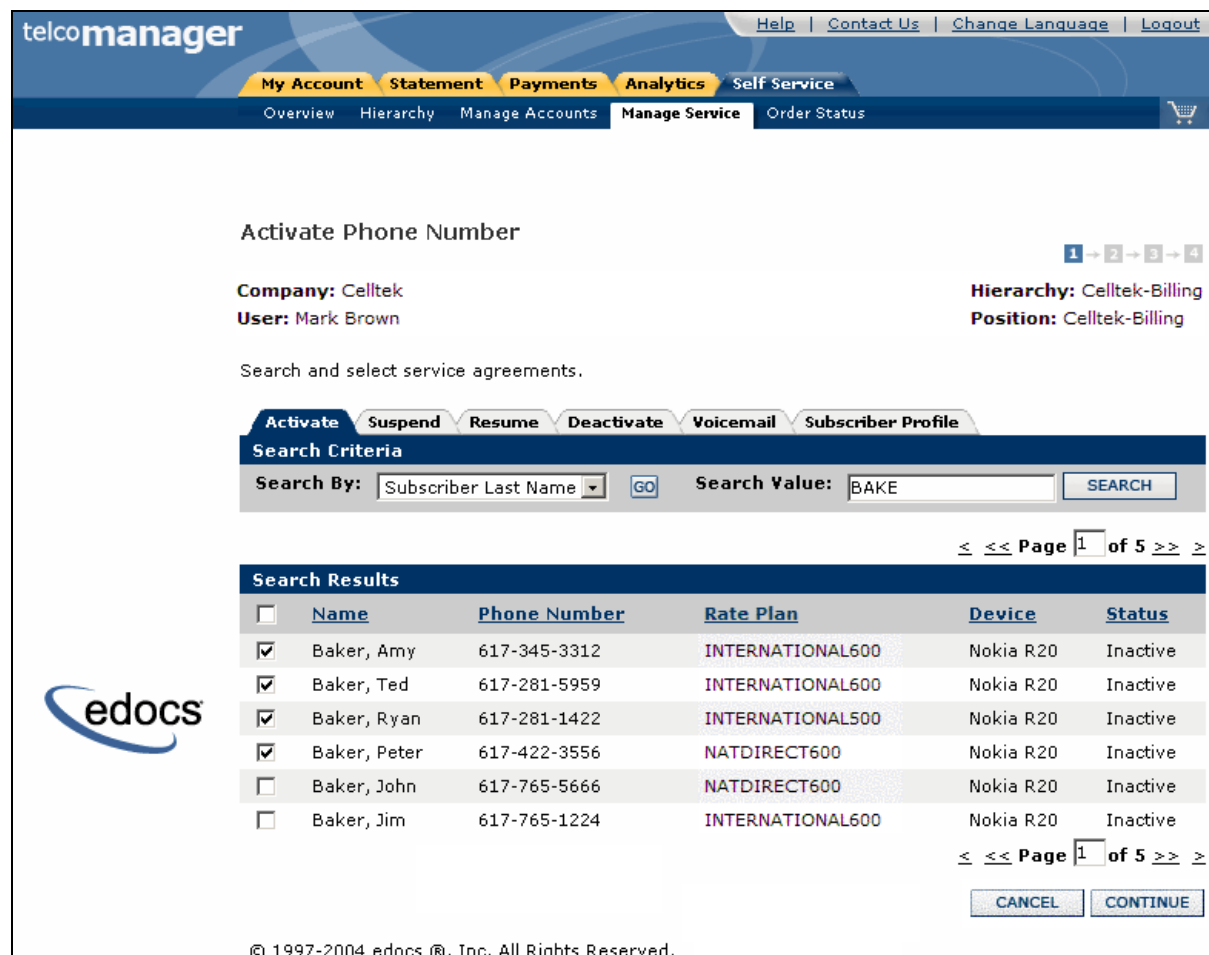
2.5.1 Activate Service

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:	1. User selects Manage Service > Activate option. <u>Step 1: Select service agreement</u> 2. 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. <u>Step 2: Enter DSN and reason for activation</u> 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] <u>Step 3: Verify</u> 7. System displays the phone number and reason selected for verification. 8. User verifies and selects confirm action. <u>Step 4: Confirmation</u> 9. 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 2. 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 TSM 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. [E3] System displays error message not valid for network.
Business Rules:	[B1] System validates DSN and checks device compatibility. [B2] System filters service agreement's based on status and displays only service agreement's that are "INACTIVE".
Notes:	The reasons displayed are configurable by the service provider.



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



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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Activate Phone Number

1 → 2 → 3 → 4

Company: Celltek **Hierarchy:** Celltek-Billing

User: Mark Brown **Position:** Celltek-Billing

Search and select service agreements.

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Search Criteria

Search By: Subscriber Last Name GO Search Value: BAKE SEARCH

< << Page 1 of 5 >> >

Search Results					
☐	Name	Phone Number	Rate Plan	Device	Status
☒	Baker, Amy	617-345-3312	INTERNATIONAL600	Nokia R20	Inactive
☒	Baker, Ted	617-281-5959	INTERNATIONAL600	Nokia R20	Inactive
☒	Baker, Ryan	617-281-1422	INTERNATIONAL500	Nokia R20	Inactive
☒	Baker, Peter	617-422-3556	NATDIRECT600	Nokia R20	Inactive
☐	Baker, John	617-765-5666	NATDIRECT600	Nokia R20	Inactive
☐	Baker, Jim	617-765-1224	INTERNATIONAL600	Nokia R20	Inactive

< << Page 1 of 5 >> >

CANCEL CONTINUE

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Figure 2.5-1 Sample selection screen for bulk changes

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

To activate a phone number please enter the device serial number

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Selected Service Agreement

Name	Phone Number	DSN	Reason	
Baker, Amy	617-345-3312		Received Phone from Other	Remove
Baker, Ted	617-281-5959		Received Phone from Other	Remove
Baker, Ryan	617-281-1422		Received Phone from Other	Remove
Baker, Peter	617-422-3556		Received Phone from Other	Remove



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Figure 2.5-2 Sample screen to input ESN

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[My Account](#) | [Statement](#) | [Payments](#) | [Analytics](#) | [Self Service](#)

[Overview](#) | [Hierarchy](#) | [Manage Accounts](#) | [Manage Service](#) | [Order Status](#)

The following device serial number(s) have been detected as invalid.
Please reenter the invalid DSN or remove the service agreement.

Activate Phone Number

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

If you wish to process the valid DSN changes click submit.

[Activate](#) | [Suspend](#) | [Resume](#) | [Deactivate](#) | [Voicemail](#) | [Subscriber Profile](#)

Invalid Phone Number(s)

Name	Phone Number	Enter New DSN	Reason
Baker, Amy	617-345-3312	Q3456463464444-A	Received Phone from Other Remove

Valid Phone Number(s)

Name	Phone Number	DSN	Reason
Baker, Ted	617-281-5959	Q34564634621111-B	Received Phone from Other Remove
Baker, Ryan	617-281-1422	R34564634622222-C	Received Phone from Other Remove
Baker, Peter	617-422-3556	M34564634624444-D	Received Phone from Other Remove

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Figure 2.5-3 System error screen for invalid DSN entry

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Activate Phone Number

1 → 2 → **3** → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Do you wish to activate the following service agreements?

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Selected Service Agreement

Name	Phone Number	DSN	Reason	
Baker, Ted	617-281-5959	Q34564634621111-B	Received Phone from Other	Remove
Baker, Ryan	617-281-1422	R34564634622222-C	Received Phone from Other	Remove
Baker, Peter	617-422-3556	M34564634624444-D	Received Phone from Other	Remove

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Figure 2.5-4 Verify Service Agreement Screen

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My Account | Statement | Payments | Analytics | Self Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Activate Phone Number

1 → 2 → 3 → **4**

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

The following service agreements have been activated. Your tracking number is: [56784932](#)

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Confirmation

Name	Phone Number	DSN	Reason	
Baker, Ted	617-281-5959	Q34564634621111-B	Received Phone from Other	Remove
Baker, Ryan	617-281-1422	R34564634622222-C	Received Phone from Other	Remove
Baker, Peter	617-422-3556	M34564634624444-D	Received Phone from Other	Remove

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Figure 2.5-5 Activate Service Agreement Confirmation Screen

2.5.2 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:	1. User selects Manage Service > Suspend option. <u>Step 1: Select service agreement</u> 2. 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. <u>Step 2: Select reason and date</u> 4. System displays selected service agreement details and prompts to: 1. Enter reason for suspension [B1] i) Equipment trouble ii) Missing or Stolen Equipment iii) Sold the Unit iv) Vacation 2. Enter an effective date. 5. User selects a reason, enters an effective date and selects continue action. <u>Step 4: Verify</u> 6. System displays the effective date to confirm. 7. User verifies and selects confirm action. <u>Step 5: Confirmation</u> 8. 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 filters service agreement's based on status 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 Suspend Service in bulk.



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Select Service Agreement

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements.

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Search Criteria

Search By: Device Type **Search Value:** MOTOROLA80

Search Results

☐	Name	Phone Number	Rate Plan	Device	Status
☒	Jones, Kenneth	617-765-5613	NATDIRECT600	MOTOROLA80	Active
☒	Brown, Dennis	397-894-2104	INTERNATIONAL600	MOTOROLA80	Active
☒	Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Active
☐	Cooney, Liam	397-894-2109	NATDIRECT600	MOTOROLA80	Active
☒	Jones, Brenda	617-487-9771	NATDIRECT600	MOTOROLA80	Active
☒	Baker, Carren	397-894-2101	INTERNATIONAL600	MOTOROLA80	Active
☐	Buel, Christina	803-397-4516	NATDIRECT600	MOTOROLA80	Active
☐	Virgo, Perter	617-938-0011	INTERNATIONAL500	MOTOROLA80	Active
☐	Jones, Lawrence	617-765-5617	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Barbara	617-765-5627	NATDIRECT600	MOTOROLA80	Active

29 items found, displaying 1 to 10. [First/Prev] 1, 2, 3 [Next/Last]

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Figure 2.5-6 Sample selection screen to suspend service

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Enter Reason to Suspend Service

1 → **2** → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please select the reason for the suspension and specify the effective date.

Activate | **Suspend** | Resume | Deactivate | Voicemail | Subscriber Profile

Name	Phone Number	Reason for Suspension	Effective
Jones, Kenneth	617-765-5613	Equipment Trouble	☐ / ☐
Brown, Dennis	397-894-2104	Equipment Trouble	☐ / ☐
Jones, Richard	847-349-4104	Equipment Trouble	☐ / ☐
Jones, Brenda	617-487-9771	Equipment Trouble	☐ / ☐
Baker, Carren	397-894-2101	Equipment Trouble	☐ / ☐

5 items found, displaying all items.1

HeaRt - Cale...

February 2005
<< < Today > >>

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

Select Cancel

Remove
L600 Remove
L400 Remove
Remove
L600 Remove
CONTINUE

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Enter Reason to Suspend Service

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please select the reason for the suspension and specify the effective date.

Activate | **Suspend** | Resume | Deactivate | Voicemail | Subscriber Profile

Selected Service Agreement

Name	Phone Number	Reason for Suspension	Effective Date	Rate Plan
Jones, Kenneth	617-765-5613	Vacation	02 / 25 / 2005	NATDIRECT600 Remove
Brown, Dennis	397-894-2104	Vacation	02 / 25 / 2005	INTERNATIONAL600 Remove
Jones, Richard	847-349-4104	Missing or Stolen Equipment	02 / 4 / 2005	INTERNATIONAL400 Remove
Jones, Brenda	617-487-9771	Vacation	02 / 25 / 2005	NATDIRECT600 Remove
Baker, Carren	397-894-2101	Equipment Trouble	02 / 27 / 2005	INTERNATIONAL600 Remove

5 items found, displaying all items.1

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Figure 2.5-7 Screen to input a reason and effective date

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Confirm Service Agreements

1 → 2 → **3** → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Do you wish to suspend the following service agreements?

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Selected Service Agreement

Name	Phone Number	Reason for Suspension	Effective Date	Rate Plan	
Jones, Kenneth	617-765-5613	Vacation	02/25/2005	NATDIRECT600	Remove
Brown, Dennis	397-894-2104	Vacation	02/25/2005	INTERNATIONAL600	Remove
Jones, Richard	847-349-4104	Missing or Stolen Equipment	02/4/2005	INTERNATIONAL400	Remove
Jones, Brenda	617-487-9771	Vacation	02/25/2005	NATDIRECT600	Remove
Baker, Carren	397-894-2101	Equipment Trouble	02/27/2005	INTERNATIONAL600	Remove

5 items found, displaying all items.1

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Figure 2.5-8 Verify status

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Confirmation Summary

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your status change has been completed. Your tracking number is: [56784932](#)

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Confirmation				
Name	Phone Number	Reason for Suspension	Effective Date	Rate Plan
Jones, Kenneth	617-765-5613	Vacation	02/25/2005	NATDIRECT600
Brown, Dennis	397-894-2104	Vacation	02/25/2005	INTERNATIONAL600
Jones, Richard	847-349-4104	Missing or Stolen Equipment	02/4/2005	INTERNATIONAL400
Jones, Brenda	617-487-9771	Vacation	02/25/2005	NATDIRECT600
Baker, Carren	397-894-2101	Equipment Trouble	02/27/2005	INTERNATIONAL600

5 items found, displaying all items.1

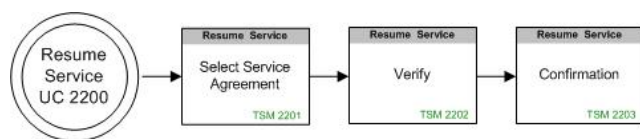
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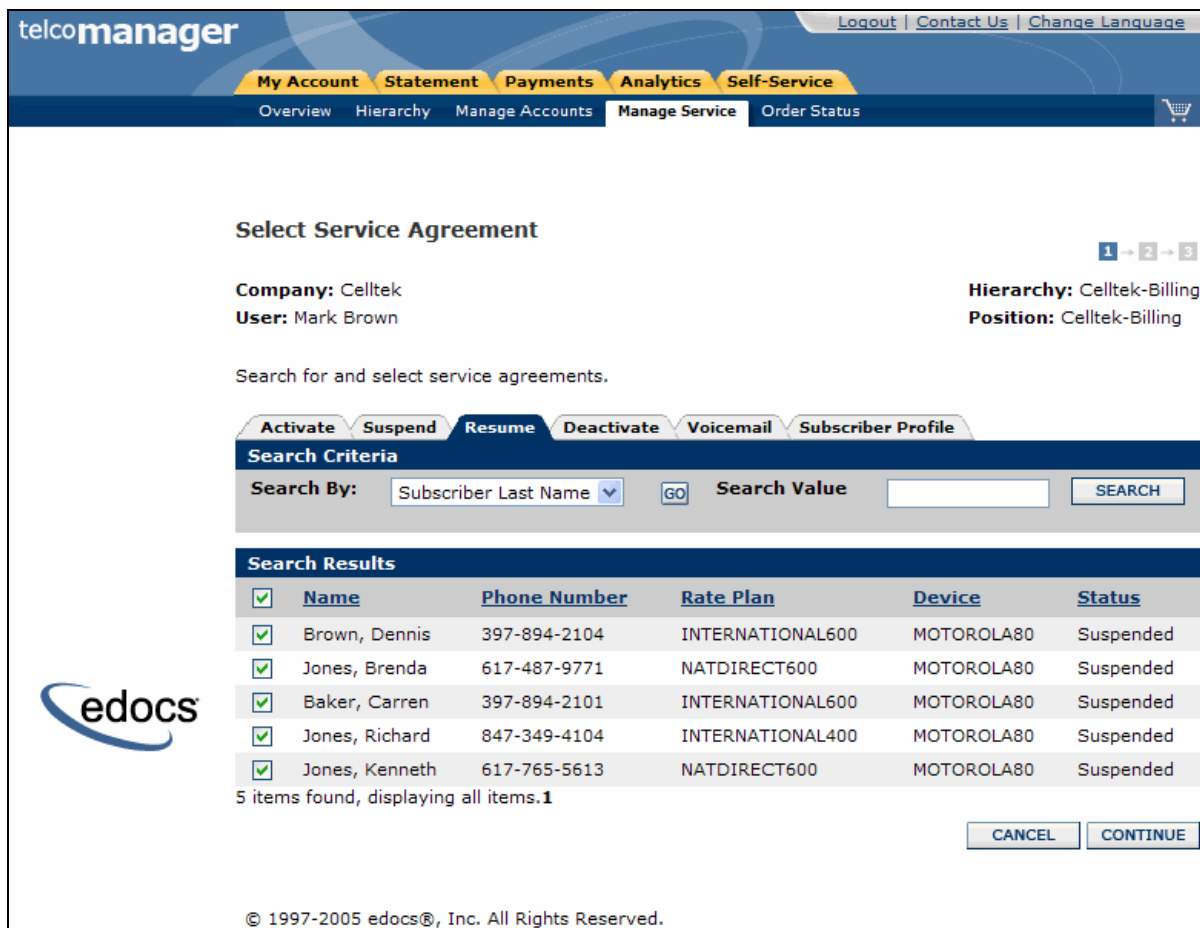
Figure 2.5-9 Confirm Service Agreements

2.5.3 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:	1. User selects Manage Service > Resume option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's. [B1] 3. User selects a service agreement from the list and selects continue action. <u>Step 2: Verify</u> 4. System displays service agreement details to confirm. 5. User verifies and selects confirm action. <u>Step3 : Confirmation</u> 6. 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 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:	1. Cancel action 2. Paging action (number of lines configurable by use case) 3. 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 based on status and displays only service agreement's that are "SUSPENDED".
Notes:	The reasons displayed are configurable by the service provider.



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



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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Select Service Agreement 1 → 2 → 3

Company: Celltek
User: Mark Brown
Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select service agreements.

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Search Criteria

Search By: Subscriber Last Name **Search Value:**

Search Results

☒	Name	Phone Number	Rate Plan	Device	Status
☒	Brown, Dennis	397-894-2104	INTERNATIONAL600	MOTOROLA80	Suspended
☒	Jones, Brenda	617-487-9771	NATDIRECT600	MOTOROLA80	Suspended
☒	Baker, Carren	397-894-2101	INTERNATIONAL600	MOTOROLA80	Suspended
☒	Jones, Richard	847-349-4104	INTERNATIONAL400	MOTOROLA80	Suspended
☒	Jones, Kenneth	617-765-5613	NATDIRECT600	MOTOROLA80	Suspended

5 items found, displaying all items.1

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Figure 2.5-10 Sample selection screen

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

1 → 2 → 3

2

Confirm Service Agreements

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Do you wish to resume the following service agreements?

Activate | Suspend | **Resume** | Deactivate | Voicemail | Subscriber Profile

Selected Service Agreement

Name	Phone Number	Rate Plan	
Brown, Dennis	397-894-2104	INTERNATIONAL600	Remove
Jones, Brenda	617-487-9771	NATDIRECT600	Remove
Baker, Carren	397-894-2101	INTERNATIONAL600	Remove
Jones, Richard	847-349-4104	INTERNATIONAL400	Remove
Jones, Kenneth	617-765-5613	NATDIRECT600	Remove


5 items found, displaying all items.1

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Figure 2.5-11 Verify status

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Confirmation Summary

1 → 2 → 3

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your status change has been completed. Your tracking number is: [56784932](#)

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Confirmation		
Name	Phone Number	Rate Plan
Brown, Dennis	397-894-2104	INTERNATIONAL600
Jones, Brenda	617-487-9771	NATDIRECT600
Baker, Carren	397-894-2101	INTERNATIONAL600
Jones, Richard	847-349-4104	INTERNATIONAL400
Jones, Kenneth	617-765-5613	NATDIRECT600

5 items found, displaying all items.1

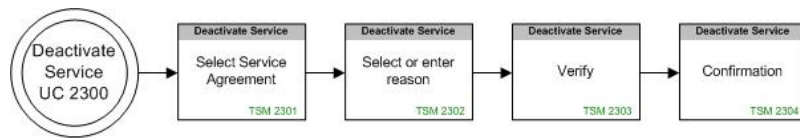
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Figure 2.5-12 Confirmation screen

2.5.4 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. <u>Step 1: Select service agreement</u> 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. <u>Step 2: Select or enter reason</u> 4. System displays selected service agreement details and prompts to enter a reason for deactivation. [E1] 1. Original DSN incorrect 2. Phone being repaired 3. Phone was stolen 4. Account closed 5. User selects a reason and selects continue action. [A1] <u>Step 3: Verify</u> 6. System displays the service agreement to verify. 7. User verifies and selects confirm action. <u>Step 4: Confirmation</u> 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:	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:	None
Notes:	None



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

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My Account **Statement** **Payments** **Analytics** **Self-Service**

Overview Hierarchy Manage Accounts **Manage Service** Order Status

Deactivate Service

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreements.

Activate **Suspend** **Resume** **Deactivate** **Voicemail** **Subscriber Profile**

Search Criteria

Search By: Subscriber Last Name **GO** **Search Value** **SEARCH**

Search Results

☐	Name	Phone Number	Rate Plan	Device	Status
☒	Jones, Marie	617-126-2441	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Jones, Bryan	617-765-5671	NATDIRECT600	MOTOROLA80	Active
☒	Scott, Judy	847-349-4109	INTERNATIONAL400	MOTOROLA80	Active
☒	Brown, John	847-349-4117	INTERNATIONAL600	BLACKBERRY7280	Active
☒	Cooney, John	617-487-9899	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Jones, Tim	617-765-5619	NATDIRECT600	MOTOROLA80	Active
☐	Jones, Eve	508-309-3943	INTERNATIONAL600	BLACKBERRY7280	Active
☒	Baker, William	397-894-2107	INTERNATIONAL600	MOTOROLA80	Active
☐	Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active
☐	Virgo, Perter	617-938-0011	INTERNATIONAL500	MOTOROLA80	Active

81 items found, displaying 1 to 10.[First/Prev] 1, 2, 3, 4, 5, 6, 7, 8 [Next/Last]

CANCEL **CONTINUE**

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Figure 2.5-13 Sample selection screen

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Deactivate Service
1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please select the reason for deactivation.

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Selected Service Agreement

Name	Phone Number	DSN	Reason for Deactivation	
Jones, Marie	617-126-2441	DSN56	Account closed	Remove
Scott, Judy	847-349-4109	DSN11	Phone was stolen	Remove
Brown, John	847-349-4117	DSN21	Phone was stolen	Remove
Cooney, John	617-487-9899	DSN50	Account closed	Remove
Baker, William	397-894-2107	DSN37	Original DSN incorrect Original DSN incorrect Phone being repaired Phone was stolen Account closed	Remove

5 items found, displaying all items.1

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Figure 2.5-14 Sample screen to input a reason

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Deactivate Service

1 → 2 → **3** → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Do you wish to deactivate the following service agreements?

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Selected Service Agreement

Name	Phone Number	DSN	Reason for Deactivation	
Jones, Marie	617-126-2441	DSN56	Account closed	Remove
Scott, Judy	847-349-4109	DSN11	Phone was stolen	Remove
Brown, John	847-349-4117	DSN21	Phone was stolen	Remove
Cooney, John	617-487-9899	DSN50	Account closed	Remove
Baker, William	397-894-2107	DSN37	Account closed	Remove

5 items found, displaying all items.1

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Figure 2.5-15 Deactivate flow – Verify service agreement screen

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Deactivate Service

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Your phone number deactivations have been completed. Your tracking number is: [56784932](#)

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Selected Service Agreement

Name	Phone Number	DSN	Reason for Deactivation
Jones, Marie	617-126-2441	DSN56	Account closed
Scott, Judy	847-349-4109	DSN11	Phone was stolen
Brown, John	847-349-4117	DSN21	Phone was stolen
Cooney, John	617-487-9899	DSN50	Account closed
Baker, William	397-894-2107	DSN37	Account closed

5 items found, displaying all items.1

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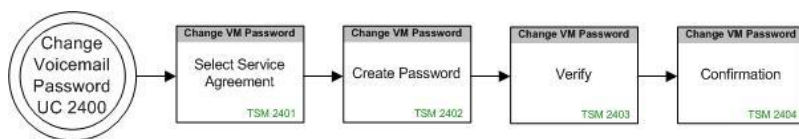
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Figure 2.5-16 Confirmation screen for deactivation

2.5.5 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:	1. User selects Manage Service > Change Voicemail password option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's 3. User selects a service agreement from the list and selects continue action. <u>Step 2: Create Password</u> 4. System displays selected service agreement details along with following options: 1. Please choose a password for me 2. I wish to create my own password i) Password ii) Re-enter password 5. User selects "I wish to create my own password" option 1. User enters and re-enters password 2. and selects continue action. [A1] <u>Step 3: Verify Password</u> 6. System displays entered password for confirm. 7. User verifies and selects confirm action. <u>Step 4: Confirmation</u> 8. 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 1. User selects: "Please choose a password for me" option and continue 2. System displays automatically generated password on confirmation screen [A2] User selects continue action without selecting an option to create password. 1. 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: 1. System invokes Error Message use case.
Business Rules:	[B1] Password Validation (configurable, default 4 digit number)
Notes:	





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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

[Overview](#) | [Hierarchy](#) | [Manage Accounts](#) | **Manage Service** | [Order Status](#)

Change Voicemail Password

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select service agreement to change voicemail password.

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Search Criteria

Search By: **Search Value:**

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☒	Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active
☐	Baker, Jim	617-561-2366	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Baker, Ryan	617-345-3312	NATDIRECT600	BLACKBERRY7280	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Baker, Shelly	803-397-4513	INTERNATIONAL600	MOTOROLA80	Active
☐	Baker, Ted	617-938-0012	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Baker, Amy	847-349-4101	INTERNATIONAL400	MOTOROLA80	Active
☐	Baker, Carren	397-894-2101	INTERNATIONAL600	MOTOROLA80	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☐	Baker, Ted	617-938-0012	INTERNATIONAL600	BLACKBERRY7280	Active

16 items found, displaying 1 to 10. [First/Prev] **1**, **2** [Next/Last]

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Figure 2.5-17 Selection Screen

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Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Change Voicemail Password

1 → 2 → 3 → 4

Company: Celltek

User: Mark Brown

Hierarchy: Celltek-Billing

Position: Celltek-Billing

Enter new password or request one to be automatically created.

Activate | Suspend | Resume | Deactivate | **Voicemail** | Subscriber Profile

Service Agreement

Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Password

☒ Please choose a password for me.

☐ I wish to create my own password.

Password

Re-enter Password

BACK

CANCEL

CONTINUE

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Figure 2.5-18 Select Password

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Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Change Voicemail Password

1 → 2 → **3** → 4

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Do you wish to accept the following password?

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Service Agreement				
Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Password	
New Password	2757

[BACK](#) [CANCEL](#) [CONFIRM](#)

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Figure 2.5-19 Verify screen displays system generated password

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Change Voicemail Password

1 → 2 → 3 → **4**

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

The following voice mail password has been changed. Your confirmation number is: [108028](#)

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Service Agreement				
Name	Phone Number	Rate Plan	Device	Status
Baker, Amy	847-349-4118	INTERNATIONAL500	NOKIA5800	Active

Password	
New Password	2757

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Figure 2.5-20 Confirmation Screen

2.5.6 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:	1. User selects Manage Service > Subscriber Profile option. <u>Step 1: Select service agreement</u> 2. User optionally invokes the Search & Select use case to filter displayed service agreement's. 3. Admin user selects a service agreement and selects continue action. <u>Step 2: Edit Subscriber details</u> 4. System displays edit subscriber profile screen including: 1. First Name 2. Last Name 3. Subscriber Address (point of primary usage) iii) Street Address iv) City v) State vi) Zip code (9 characters) 4. E-mail 5. Home Phone no 6. Work Phone no - ext 5. User enters details and selects continue action [A1] [E2] <u>Step 3: Verify Changes</u> 6. System displays the changes to verify. 7. User verifies and selects confirm action. <u>Step 4: Confirmation</u> 8. System updates and displays confirmation message along with an option to print the page for user records. 9. Use case ends.
Alternate Paths:	[A1] Invalid data entry System displays invalid warning message and prompts to re-enter the details.
Standard Features:	1. Cancel action 2. Paging action (number of lines configurable by use case) 3. Track service request

Exception Paths:	[E1] User encounters a system error: 1. System invokes Error Message 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:	None



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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Change Subscriber Profile

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

To change the Subscriber Profile, please select the Subscriber below.

Activate | Suspend | Resume | Deactivate | Voicemail | **Subscriber Profile**

Search Criteria
Search By: Phone Number Search Value

Search Results

	Name	Phone Number	Rate Plan	Device	Status
☐	Peter, Tom	617-281-5959	NATDIRECT600	BLACKBERRY7280	Active
☐	Jones, Angel	508-756-8269	REGION700	NOKIA5800	Active
☐	Baker, John	847-349-4113	NATDIRECT600	BLACKBERRY7280	Active
☒	Jones, Barbara	617-765-5627	NATDIRECT600	MOTOROLA80	Active
☐	Peter, John	847-349-4111	NATDIRECT700	BLACKBERRY7280	Active
☐	Peter, Dennis	397-894-2112	INTERNATIONAL500	BLACKBERRY7280	Active
☐	Lee, Amy	847-349-4106	NATDIRECT600	BLACKBERRY7280	Active
☐	Patel, Lila	847-349-4110	INTERNATIONAL400	NOKIA5800	Active
☐	Jones, Brad	508-309-3240	INTERNATIONAL600	BLACKBERRY7280	Active
☐	Jones, Theresa	617-487-9891	NATDIRECT600	MOTOROLA80	Active

76 items found, displaying 1 to 10. [First/Prev] 1, 2, 3, 4, 5, 6, 7, 8 [Next/Last]

Figure 2.5-21 Select service agreement

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Subscriber Profile

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Enter the Subscriber Profile details and continue.

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Subscriber Details

First Name: Barbara

Last Name: Jones

Address: 10 Oak Tree Lane

City: Matick

State: MA

Zip/Postal Code: 01760

Email: barbara@edocs.com

Home Phone: 508-333-5343

Work Phone: 508-452-5534

BACK

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Figure 2.5-22 Edit Subscriber Details

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | **Manage Service** | Order Status

Change Subscriber Profile

1 → 2 → **3** → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

Please confirm the changes.

Activate | **Suspend** | **Resume** | **Deactivate** | **Voicemail** | **Subscriber Profile**

Subscriber Details

First Name: Barbara
Last Name: Jones
Address: 10 Oak Tree Lane
City: Matick
State: MA
Zip/Postal Code: 01760
Email: barbara@edocs.com
Home Phone: 508-333-5343
Work Phone: 508-452-5534

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Figure 2.5-23 Verify changes

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My Account | Statement | Payments | Analytics | Self-Service

Overview | Hierarchy | Manage Accounts | Manage Service | Order Status

Change Subscriber Profile

1 → 2 → 3 → 4

Company: Celltek
User: Mark Brown

Hierarchy: Celltek-Billing
Position: Celltek-Billing

The Subscriber Profile has been changed. Your tracking number is: [108029](#)

Activate | Suspend | Resume | Deactivate | Voicemail | Subscriber Profile

Subscriber Details

First Name: Barbara

Last Name: Jones

Address: 10 Oak Tree Lane

City: Matick

State: MA

Zip/Postal Code: 01760

Email: barbara@edocs.com

Home Phone: 508-333-5343

Work Phone: 508-452-5534



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Figure 2.5-24 Confirmation Screen

2.6 Order Status Use Cases

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

2.6.1 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:	10. User selects Order Status tab from the menu or a hyperlink from the overview page. 11. Display Tracking Number [A1] [A2] 1. System displays a list of most recent service requests with a status of "In process" along with the following attributes: [B1-B2] i) Tracking Number ii) Phone Number (aka MTN) iii) Date/Time iv) Status (Service Request Status) v) Status Description 12. User selects tracking number 13. System displays transaction details page, with a summary of 1. Tracking number 2. Phone Number 3. Date/Time 4. Status (Service Request Status) 5. Status 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. 1. 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: (1) Pending (2) Success (3) Partial Success (4) Failed 2. System displays all matching tracking numbers System uses match logic for text box fields (as "starts with" or "exact match" logic) 3. 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) 2. User (text box) Online user ID of the person who initiated the service request. 3. 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 1. Tracking numbers for bulk orders are visually differentiated (such as separate column with a "*" or "bulk"). Tracking status for group transactions are as follows: iii) Open-Pending (Request submitted , no transaction failed) iv) Open-Mixed (Transactions Failed > = 1) v) Closed-Success (All Success) vi) Closed-Mixed (Transactions Failed >=1) vii) Closed-Failed (All Transactions Failed) 2. Bulk numbers are returned in searches if any of their associated individual tracking numbers match the search criteria. 3. Clicking on a bulk tracking order displays a screen of individual tracking numbers. 4. 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:	[B3] 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. [B4] System provides ability to sort the transactions displayed based on column header labels [B5] List of self-service transaction includes: 1. Change Rate Plan 2. Add/Delete features 3. Change DSN 4. Change phone number 5. Port Number 6. Activate service 7. Suspend service 8. Resume service 9. Deactivate service 10. Change Voicemail password 11. Change Subscriber profile
Notes:	1. System defaults the status to 'In Process' status type in the search bar.

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My Account | **Statement** | **Payments** | **Analytics** | **Self-Service**

Overview | Hierarchy | Manage Accounts | Manage Service | **Order Status**

Order Status

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Search for and select a tracking number.

Search Criteria

Enter Tracking Number **Status** [Show More Filters](#)

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Figure 2.6-1 Order Status – In-process requests.

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Payments
Analytics
Self-Service

Overview
Hierarchy
Manage Accounts
Manage Service
Order Status

Order Status

Company: Celltek
User: Mark Brown
Hierarchy: Celltek-Billing
Position: Celltek-Billing

Search for and select a tracking number.

Search Criteria

Enter Tracking Number
108038
Status
▼

Phone Number
User

Date Range
From
/
/
To
/
/

Transaction Type
▼

RESET
SEARCH

Hide Filters

Search Results

Group	Tracking Number	Phone Number	Date/Time	Status	Description
	108038	617-765-5610	02/04/2005 - 13:45 PM	Success	Add/Delete Features

One item found.1

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Figure 2.6-2 Order Status – Additional Filters

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My Account **Statement** **Payments** **Analytics** **Self-Service**

[Overview](#) [Hierarchy](#) [Manage Accounts](#) [Manage Service](#) [Order Status](#)

Order Status

Company: Celltek **Hierarchy:** Celltek-Billing
User: Mark Brown **Position:** Celltek-Billing

Transaction				
Tracking Number	Phone Number	Date/Time	Status	Description
108038	617-765-5610	02/04/2005 - 13:45 PM	Success	Add/Delete Features

Transaction History			
Date/Time	Source	Status	Description
02/04/2005 - 13:45 PM	Mark Brown	Success	Successful Completion
02/04/2005 - 13:45 PM	Mark Brown	Pending	Service Request Created

[BACK TO ORDER STATUS](#) [PRINT FOR YOUR RECORDS](#)

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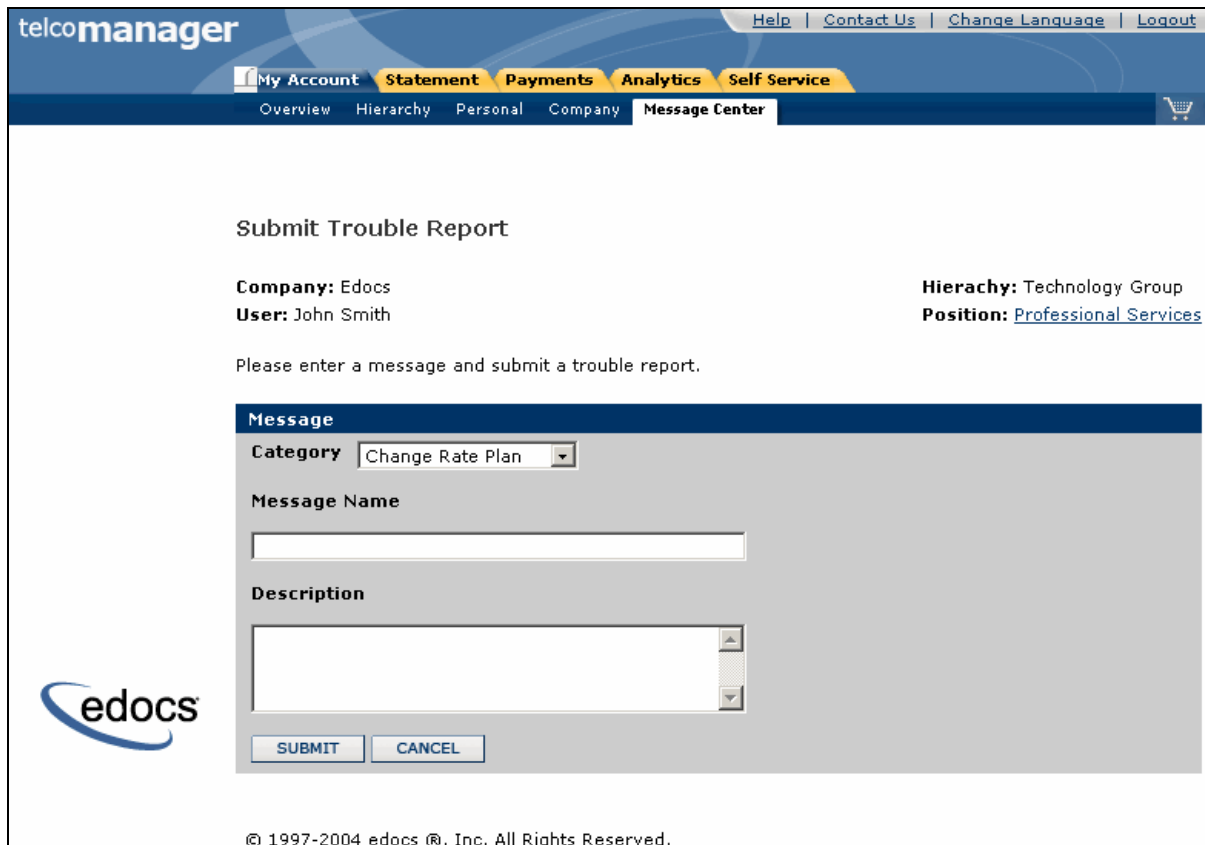
Figure 2.6-3 Sample status change history details page

2.7 Message Center Use Case

2.7.1 Trouble Reports

Name:	Trouble Reports
Brief Description:	Enables customer to submit trouble reports for any service related issues.
Actors:	CSR, Admin
Main Path:	1. Select Trouble Reports User accesses this screen from a link on the "Overview" page or from the message center option under the "contact us" 2. System displays <i>Trouble Reports</i> page containing: 1. Drop down list containing Message Categories 2. Message name 3. Message description 3. 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 1. 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 1. System redirects user to service page.
Exception Paths:	[E1] User does not select a category: 1. System redisplay s page with an error messages asking the user to select a category. [E2] User does not enter text for message name: 1. System redisplay s page with an error messages asking the user to enter a message name [E3] User does not enter text for message: 1. 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.
Configuration Options	If the client purchases edocs 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.



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My Account | **Statement** | **Payments** | **Analytics** | **Self Service**

Overview | Hierarchy | Personal | Company | **Message Center** 

Submit Trouble Report

Company: Edocs **Hierarchy:** Technology Group
User: John Smith **Position:** [Professional Services](#)

Please enter a message and submit a trouble report.



Message

Category

Message Name

Description

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Figure 2.7-1 Sample trouble report screen

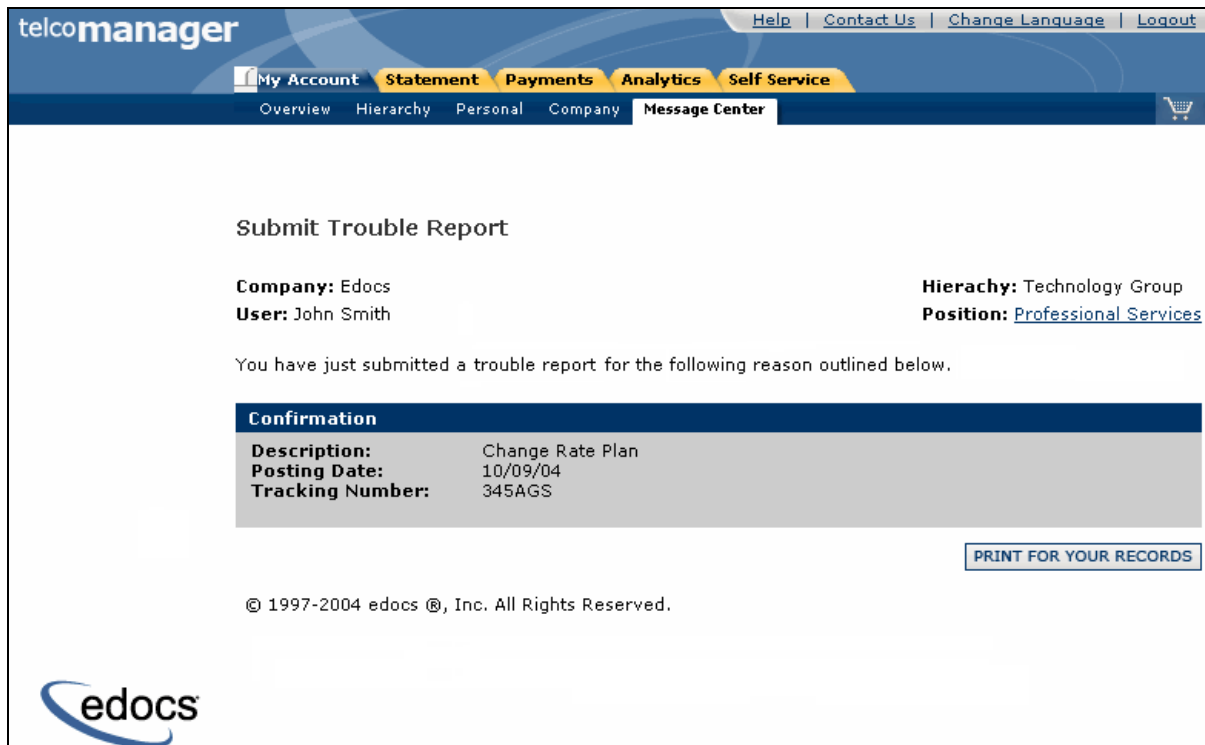


Figure 2.7-2 Confirmation screen

4

User Interface

3.1 TSM Site Map

The following page shows the site map for the 5.01 version of TSM.

Figure 4.1 1 TSM Site Map

3.2 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.X and above