

Core Release Bulletin

CostGuard Solution
21.7 Release

July 2021

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About this Document

IDI's Core Release Bulletins describe new Core functionality introduced with the release through either Adaptive (AR) or Feature (FR) requests. Core functionality is defined as a capability that is available to all customers that upgrade to the release, although in some cases additional custom work may be required to use it. This document includes an overview of the new capabilities as well as the required configuration or setup information. Supporting documentation can be found on E-Support under [Resources > Knowledge Center and Resources Help Resources](#).

Additional training opportunities are also available through IDI University. Please contact your Account/Project Manager for more information.

1 Release Summary

1.1 CHANGE ORDERS/ENHANCEMENTS

The following change orders and other enhancements are included in this release.

Functional Area	AR/FR	Description
Customer Care	AR 8759	<p>Service summary view on invoices</p> <p>The Invoice page has a new service summary view that displays invoice sub-totals by service including recurring charges, non-recurring charges, usage, and discounts. It also provides tax sub-totals, when available. This new view is available for all invoices.</p>
Security	AR 8838	<p>Web security logon to CostGuard Client and Admin Console</p> <p>This solution enables CostGuard users to log in to CostGuard Client and Admin Console with the CostGuard web security login used for web applications such as Customer Care and Workflow. This provides a consistent login experience and lets users take advantage of features such as OAuth login and password reset self-care. Authorized users can turn this functionality on and off.</p>
Orders	AR 8795	<p>Enhanced support for protection plans (such as Apple Care)</p> <p>Many service providers offer their customers device protection plans (service contracts) that help customers mitigate the expense when a device is lost or damaged. These plans can also provide a source of revenue for service providers. For some time, the CostGuard system has supported the sale of handset insurance as a monthly recurring charge product (MRC). With version 21.7 and later, the CostGuard system provides a comprehensive solution for configuring, selling, and managing protection plans.</p> <ul style="list-style-type: none"> • Configuration and Setup <ul style="list-style-type: none"> ▪ The Product Catalog web application lets you set up protection plan profiles that establish rules for processing (including provisioning) different plans. ▪ The Product Catalog in CostGuard Client lets you set up protection plan products for sale. You can set up billing products to sell on a recurring charge (MRC) basis, or retail products to sell on a pay-up-front basis. • Sales - The Orders web application and POS Make Sale in CostGuard Client support selling protection plans on a monthly recurring charge (MRC) basis or as a one time charge assessed at the time of sale. • Managing Plans - Customer Care lets you add, view, search and manage protection plans on an account.

1.2 RESOLVED KNOWN ISSUES

The following known issues have been resolved in this release.

Functional Area	PR	Description
Payment Processing	83701	<p>Applying credits on inactive E-Pay accounts</p> <p>Web services were preventing users from applying credits to inactive E-Pay accounts. The Customer and Balance web services were enhanced to allow updates on <i>refund</i> transactions for inactive (<i>end date expired</i>) E-Pay accounts.</p> <p>Note: PR 83607 (CostGuard version 21.1) enhanced the Customer and Balance web services with respect to creating E-Pay transactions. PR 83701 extends this enhancement to modifying E-Pay transactions (e.g. applying a credit).</p>
	83729	<p>E-pay processing errors</p> <p>Running E-Pay could result in a large number of errors for certain flows that could lead to setting the RootEpayTransactionID and/or the RetryIndicator to NULL. This NULL value resulted in the error message that was reported.</p> <p>Logic has been added to handle the NULL scenarios to prevent the error.</p>
	83745	<p>PCI payment gateway error on setting <i>OriginalNetworkTransactionID</i></p> <p>The PCI Payment Gateway Processing scheduled job was encountering an error when attempting to credit an E-Pay transaction with an <i>OriginalNetworkTransactionID</i> set but the E-Pay account being used did not have an <i>OriginalNetworkTransactionID</i>.</p> <p>This was fixed by adding a Null reference check.</p>
RateBill	83636	<p>Billing Log Warnings Received for Disconnected Products</p> <p>Warnings were received during Billing for expired tax jurisdictions. The errors were all for features that had been disconnected in the past and were not relevant to the current billing run. Billing has been updated so that validation is not done for historical features that are no longer billing.</p>
	83737	<p>XML validation issue</p> <p>When running Billing, there was an issue validating XML when enabling the setting <i>Separate Taxes into Mandatory/Non-Mandatory Sections</i>. The issue was due to a missing tag for the setting, and was only experienced when this setting was enabled. The CostGuard ifx.dtd file has been updated to define the missing element for this setting.</p>
Address Validation	83738	<p>Order failures due to missing tax jurisdiction</p> <p>The Address Validation Management web service documentation has been updated to change <i>fipsCode</i> to <i>taxFips</i> in the response to the Validate Address Post operation. Additionally, the <i>rawResultCode</i> has been documented. There was no code change related to this. The issue was simply due to a documentation bug.</p>
Bulk Data	83719	<p>BulkData Displays Incorrect Process Time</p> <p>When viewing the File Details for a Bulk Data import in the Bulk Data web application, the Process Time would only display one digit for hour (H:MM:SS). The hours displayed would be incorrect if the value was 10 or higher.</p> <p>The display of Process Time has been updated to display two digits (HH:MM:SS).</p>
Workflow Provisioning	83695	<p>Object reference error when response from MetaSwitch didn't contain ExtendedSubResults</p> <p>An Object reference error was occurring when provisioning to Metaswitch in some scenarios. This was due to not properly handling when a response from MetaSwitch lacked <i>ExtendedSubResults</i>.</p> <p>A NULL check was added to the <i>ExtendedSubResults</i> field so that when responses do not contain the results, an error will not occur.</p>

Functional Area	PR	Description
Workflow Provisioning	83710	<p>List drop down limited to 20 items when scrolling available values</p> <p>In Workflow Provisioning, the List drop downs were limiting the available values to the first page of 20 values. Users could use the type ahead functionality to locate the desired value; however, when trying to scroll through the list values, only the first 20 were displayed.</p> <p>This has been corrected so that users can scroll through entire sets of values in the list.</p>
	83722	<p>User-Defined List Removal of New Value Errors</p> <p>Adding an element to a user-defined list, removing the item by clicking X, and then saving resulted in an Internal Server Error.</p> <p>The Manage Lists page has been updated so that adding a new item to the list and then removing it will not cause the Internal Server error upon saving.</p>
Batch File Processing (Customer Management)	83736	<p>VOID Unbilled Adjustment Files</p> <p>Duplicate adjustments batch files were uploaded in error and attempting to void the duplicate records resulted in an error. This occurred as a result of loading batchfiles and creating multiple BCMRequest entries with a BCMRequestTypeid = 1. Void logic for payments and adjustments deletes the duplicated records in that batch by looking up those records based on the BatchFileID. When there is more than one BCMRequest for the same BatchFileID the query to identify those records presented an error. The logic for creating the BCMRequest was updated to only happen when there are no BCMRequest created for the current file.</p> <p>Note: While this PR will fix this functionality going forward, contact IDI Support if you are receiving critical error messages when attempting to void batch files.</p>

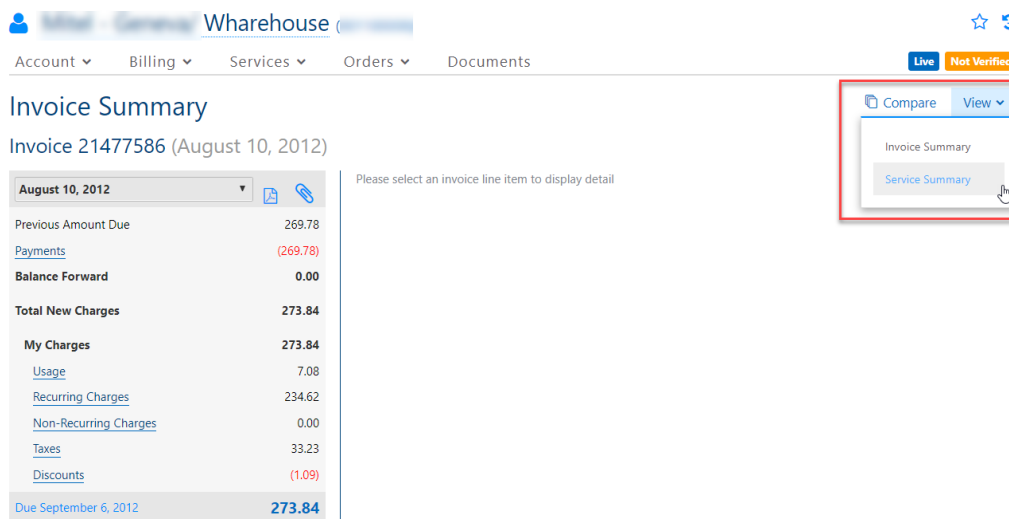
2 Service Summary View on Invoices

The Invoice page in Customer Care has a new *service summary* view that displays invoice sub-totals by service including recurring charges, non-recurring charges, usage, and discounts. It can also provide tax sub-totals when the system is configured to support this.

2.1 TOGGLING INVOICE VIEWS

A new view selector in the upper right corner lets you toggle between these invoice views:

- **Invoice Summary** – This is the original and default view. It presents the entire invoice amount, including both account- and service-level charges and credits. No changes have been made to this view.
- **Service Summary** – This is the new view that displays sub-totals by service.
- **Corporate Hierarchy** – This option is only available for corporate accounts. No changes have been made to this view. **Note:** Prior to CostGuard version 21.7, the corporate hierarchy was available via a *View Hierarchy* link at the top right portion of the page. The *Corporate Hierarchy* option in the view selector replaces the *View Hierarchy* link.

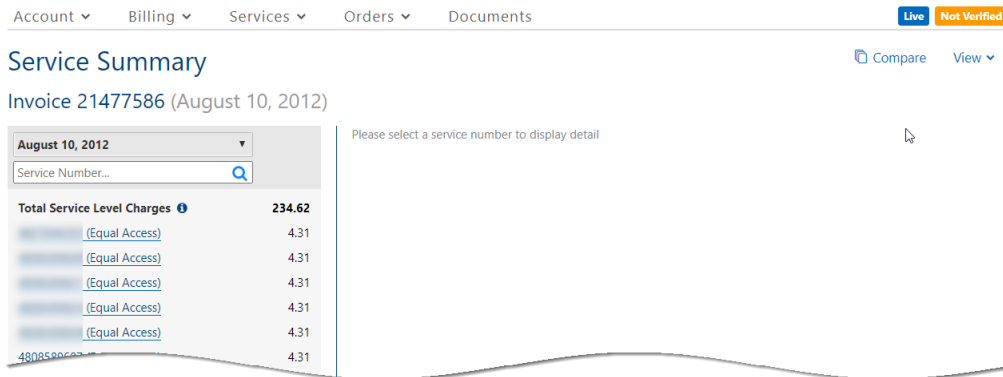


The screenshot shows the 'Invoice Summary' page for invoice 21477586 (August 10, 2012). The page includes a navigation bar with 'Account', 'Billing', 'Services', 'Orders', and 'Documents' menus. A 'Live' status indicator is present. The main content area shows a table of charges and payments. A 'View' dropdown menu is open, showing 'Invoice Summary' and 'Service Summary' options. A red box highlights the 'View' dropdown menu.

August 10, 2012	
Previous Amount Due	269.78
Payments	(269.78)
Balance Forward	0.00
Total New Charges	273.84
My Charges	273.84
Usage	7.08
Recurring Charges	234.62
Non-Recurring Charges	0.00
Taxes	33.23
Discounts	(1.09)
Due September 6, 2012	273.84

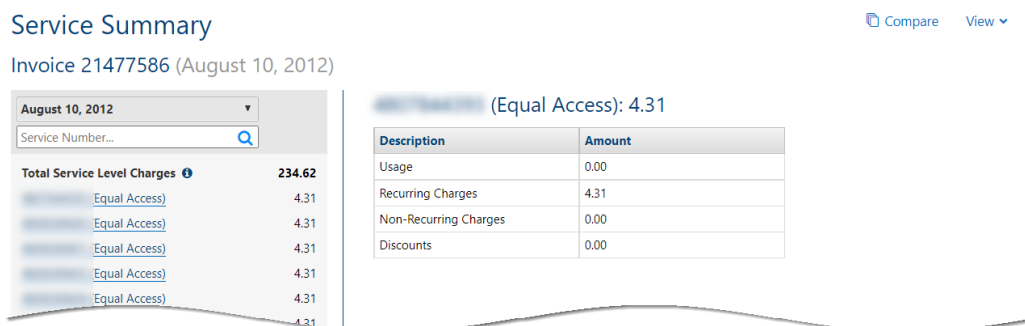
2.2 SERVICE SUMMARY VIEW

This view provides a summary of charges associated to each service number on the invoice being viewed. This view is not intended to reconcile the entire invoice amount, as account-level charges and credits are not included in this view. The left pane displays the total service-level charges on the invoice and the sub-totals for each service number.



Paging will occur if there are more than 15 services. The Search tool lets you look for a specific service number when there are a large number of services. Partial matches are supported for service number searches.

Clicking on a specific service number in the left pane displays the sub-totals for that service number by invoice category in the right pane. Totals for usage, recurring charges, non-recurring charges, taxes (if available), and discounts are provided.

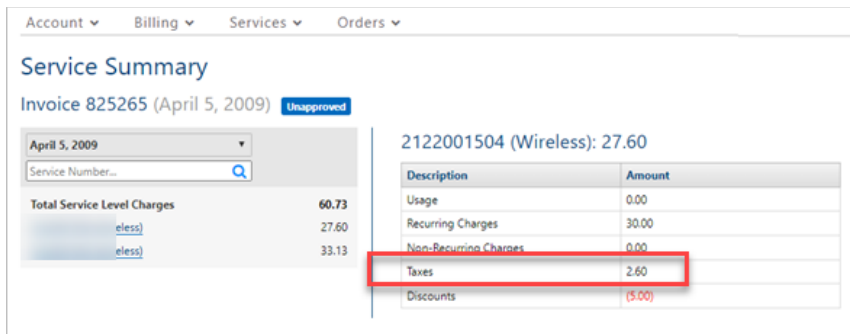


Description	Amount
Usage	0.00
Recurring Charges	4.31
Non-Recurring Charges	0.00
Discounts	0.00

2.2.1 TAX INFORMATION

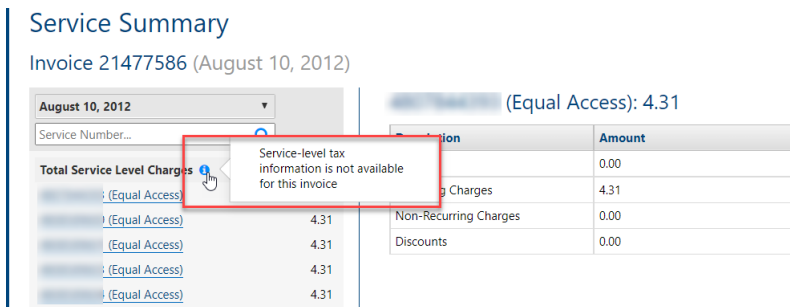
As part of this feature, Billing has been enhanced to write service-level tax information to the core database when generating invoices. This information is used to display the tax amount for each service on the Service Summary view.

Note: For tax sub-totals to be available on the Service Summary view (and available in the core database), the *Round Taxes by Service Number* setting must be enabled for the CostGuard environment. This is an existing setting that also impacts other areas in the CostGuard system (in addition to the Service Summary invoice view). This setting is not accessible by CostGuard users and must be set by an authorized IDI associate. If you wish to make tax information available in the Service Summary contact IDI Support to learn more about this setting and arrange to have it enabled.



Service Summary																									
Invoice 825265 (April 5, 2009) Unapproved																									
<table border="1"> <thead> <tr> <th colspan="2">April 5, 2009</th> </tr> <tr> <td>Service Number...</td> <td><input type="text"/></td> </tr> </thead> <tbody> <tr> <td>Total Service Level Charges</td> <td>60.73</td> </tr> <tr> <td> eless)</td> <td>27.60</td> </tr> <tr> <td> eless)</td> <td>33.13</td> </tr> </tbody> </table>	April 5, 2009		Service Number...	<input type="text"/>	Total Service Level Charges	60.73	eless)	27.60	eless)	33.13	<table border="1"> <thead> <tr> <th colspan="2">2122001504 (Wireless): 27.60</th> </tr> <tr> <th>Description</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Usage</td> <td>0.00</td> </tr> <tr> <td>Recurring Charges</td> <td>30.00</td> </tr> <tr> <td>Non-Recurring Charges</td> <td>0.00</td> </tr> <tr> <td>Taxes</td> <td>2.60</td> </tr> <tr> <td>Discounts</td> <td>(\$5.00)</td> </tr> </tbody> </table>	2122001504 (Wireless): 27.60		Description	Amount	Usage	0.00	Recurring Charges	30.00	Non-Recurring Charges	0.00	Taxes	2.60	Discounts	(\$5.00)
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Discounts	(\$5.00)																								

When viewing an invoice where the tax information is not available, an informational icon will be displayed. Clicking the icon displays text indicating these totals do not include taxes.



Service Summary																											
Invoice 21477586 (August 10, 2012)																											
<table border="1"> <thead> <tr> <th colspan="2">August 10, 2012</th> </tr> <tr> <td>Service Number...</td> <td><input type="text"/></td> </tr> </thead> <tbody> <tr> <td>Total Service Level Charges</td> <td>4.31</td> </tr> <tr> <td> (Equal Access)</td> <td>4.31</td> </tr> <tr> <td> (Equal Access)</td> <td>4.31</td> </tr> <tr> <td> (Equal Access)</td> <td>4.31</td> </tr> <tr> <td> (Equal Access)</td> <td>4.31</td> </tr> </tbody> </table>	August 10, 2012		Service Number...	<input type="text"/>	Total Service Level Charges	4.31	(Equal Access)	4.31	(Equal Access)	4.31	(Equal Access)	4.31	(Equal Access)	4.31	<table border="1"> <thead> <tr> <th colspan="2">(Equal Access): 4.31</th> </tr> <tr> <th>Description</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Usage</td> <td>0.00</td> </tr> <tr> <td>Recurring Charges</td> <td>4.31</td> </tr> <tr> <td>Non-Recurring Charges</td> <td>0.00</td> </tr> <tr> <td>Discounts</td> <td>0.00</td> </tr> </tbody> </table>	(Equal Access): 4.31		Description	Amount	Usage	0.00	Recurring Charges	4.31	Non-Recurring Charges	0.00	Discounts	0.00
August 10, 2012																											
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Discounts	0.00																										

In the case where taxes are not included, the *Taxes* amount will not be displayed on the right side of the page when viewing the sub-totals for the service number.

Note: Historical invoices (generated prior to being on CG 21.7 or higher) will not have service-level tax information available for this view.

2.3 COMPARING SERVICE SUMMARY TOTALS

Clicking the **Compare** option lets you compare the service summary totals on the current invoice with other invoices for the account.

Service Summary [Compare](#) View ▾

Invoice 21477586 (August 10, 2012)

August 10, 2012 ▾

Service Number...

Total Service Level Charges 234.62

- Equal Access 4.31
- Equal Access 4.31
- Equal Access 4.31
- Equal Access 4.31
- Equal Access 4.31
- Equal Access 4.31

(Equal Access): 4.31

Description	Amount
Usage	0.00
Recurring Charges	4.31
Non-Recurring Charges	0.00
Discounts	0.00

You can select which invoices to compare using the *bill period* (month) drop down menus. Clicking on a specific service number will display a comparison of the invoice category amounts for that service number in the selected bill periods. Differences are presented on the invoice-level in the left pane, and by category in the right pane.

You can exit the compare mode and return to the Service Summary by clicking **Back to Service Summary** in the upper right corner.

Service Summary [Back To Service Summary](#) View ▾

Invoice 21477586 (August 10, 2012)

[Compare](#)

August 10, 2012 ▾

Service Number...

	August 10, 2012	November 10, 2012
Total Service Level Charges	234.62	187.93
Equal Access	4.31	4.31
Equal Access	4.31	4.31
Equal Access	4.31	4.31
Equal Access	4.31	4.31
Equal Access	4.31	4.31
Equal Access	4.31	4.31

(Equal Access): 4.31

	August 10, 2012	Difference	November 10, 2012
Description	Amount		Amount
Usage	0.00	—	0.00
Recurring Char...	4.31	4.31 ↑	0.00
Non-Recurring ...	0.00	—	0.00
Discounts	0.00	—	0.00

Note: If either invoice does not have tax information available, the tax amounts will not be included even if they are available on one of the invoices when in compare mode.

2.4 SERVICE TAX DETAILS

When the *Round Taxes by Service Number* setting is enabled for the CostGuard environment (see Tax Information above). Billing writes additional invoice tax detail information to a new table in the core database. This data will be available in core replicated data. The new table is called *InvoiceServiceTaxDetail*. It contains the following columns:

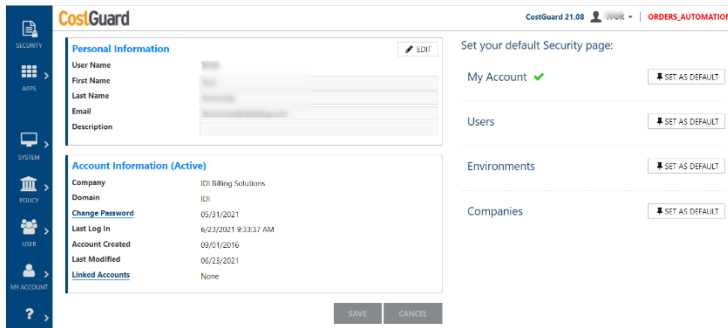
- InvoiceServiceTaxDetailID (Internal unique identifier)
- InvoiceNumber
- CustID
- UsgSvcID (not populated for account-level taxes)
- TaxID
- Amount

3 Web Security logon to CostGuard Client

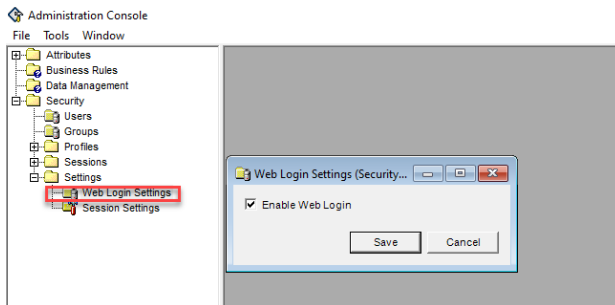
This solution enables CostGuard users to log in to CostGuard Client and Admin Console with the same web security login used for web applications such as Customer Care. This provides a consistent login experience and lets users take advantage of features such as OAuth login and password reset self-care. Authorized users can turn this functionality on and off.

SETUP

Integrated Security through the Security web module is a requirement for using Web Login.



Also, Web login must be enabled at the environment level via the Admin Console by navigating to Security > Settings > Web Login Setting. Check **Enable Web Login** and save. This enables Web login for the environment where you're currently logged in.

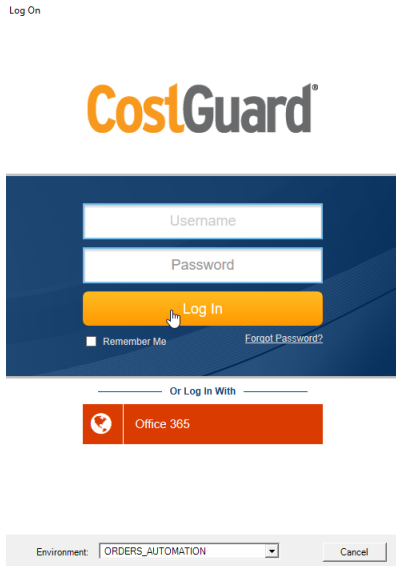


To enable Web Login for a different environment, sign out and then sign into that environment and follow the same steps.

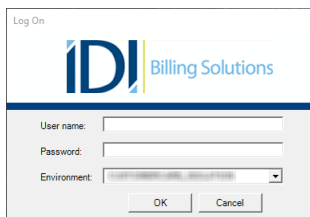
Note: Work with IDI Account Management to add/configure OAuth providers.

3.1 HOW WEB LOGIN WORKS FOR COSTGUARD CLIENT

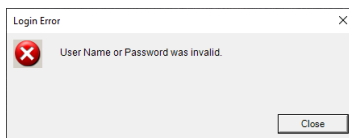
When this functionality is enabled for your current environment, selecting the CostGuard client or Admin Console launcher directs you to the Web Login form. This form lets you enter your integrated security username and password, or you can use your OAuth login for your provider. You can also select the environment where you wish to log in via the Environment drop down menu. This menu contains all environments where this functionality is enabled.



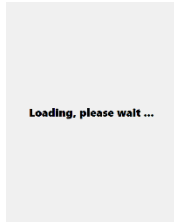
If your default environment is not configured to use web login, you'll see the original login form.



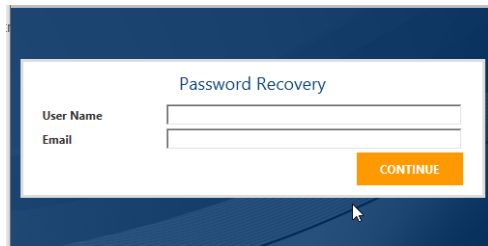
For both the Web login and original login forms, a login error will display if the login information is not correct.



When switching between environments that use Web Login and ones that do not, you'll see a loading screen as the appropriate login form is loaded.



If you forget your password, you can use the **Forgot Password** Link on the Web Login form to start the process for resetting your password.

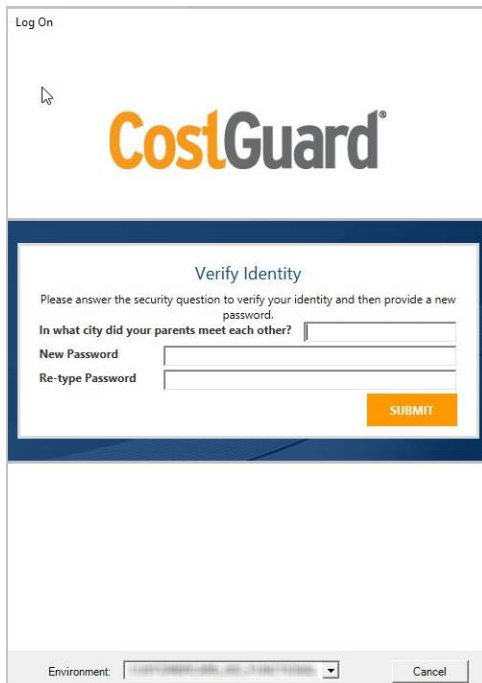


Password Recovery

User Name

Email

This will require you to answer a security question to verify your identity.



Log On

CostGuard

Verify Identity

Please answer the security question to verify your identity and then provide a new password.

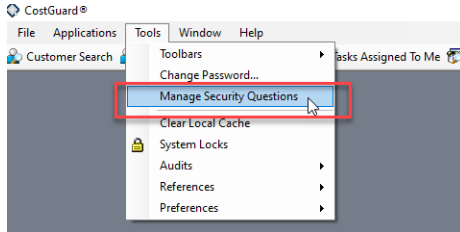
In what city did your parents meet each other?

New Password

Re-type Password

Environment:

Security questions are managed in CostGuard Client via **Tools > Manage Security Questions**.



Selecting this option will open a web browser and navigate the user to a page where they can set answers to security questions. These questions are used as part of the Forgot Password flow on the Web Login form. Please note that the Forgot password Link will not work if there are no security questions set for the user.

Security Questions EDIT

Please answer a minimum of 3 of the following security questions.

- In what city did your parents meet each other?
- What is the name of the first school you attended?
- What is the name of your best childhood friend?
- What street did you live on in third grade?
- What was the make/model of your first car?
- What was the name of your favorite teacher?
- What was the name of your favorite toy as a child?
- What was the name of your first pet?
- What was the name of your first employer?
- What was your favorite childhood TV Show?

SAVE CANCEL

3.1.1 SPECIAL LOGINS

This functionality supports the following Internal IDI logins used by internal IDI users for set up, maintenance, and configuration:

- Shell GUI
- Task Editor
- Workbook Editor
- Login for running kit

Note: The Supervisor Login and Manager Override do not use Web Login.

4 Configuring, Selling and Managing Protection Plans

Many service providers offer their customers device protection plans (service contracts) that help customers mitigate the expense when a device is lost or damaged. These plans can also provide a source of revenue for service providers. For some time, the CostGuard system has supported the sale of handset insurance as a monthly recurring charge product (MRC). With version 21.7 and later, the CostGuard system provides a comprehensive solution for configuring, selling, and managing protection plans.

- Configuration and Setup
 - The Product Catalog web application lets you set up protection plan profiles that establish rules for processing (including provisioning) different plans.
 - The Product Catalog in CostGuard Client lets you set up protection plan products for sale. You can set up billing products to sell on a recurring charge (MRC) basis, or retail products to sell on a pay-up-front basis.
- Sales - The Orders web application and POS Make Sale in CostGuard Client support selling protection plans on a monthly recurring charge (MRC) basis or as a one time charge assessed at the time of sale.
- Managing Plans - Customer Care lets you add, view, search and manage protection plans on an account.

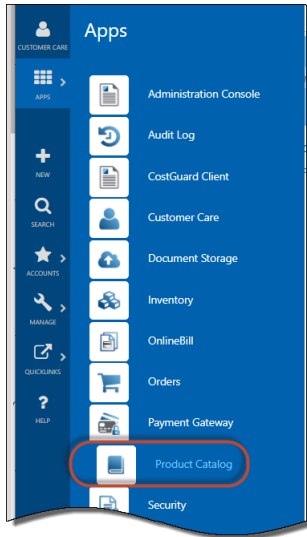
Benefits of this solution include:

- Charging for plans at point of sale (pay up front) or billing on a recurring basis.
- Performing real time eligibility checks with the third-party plan administrator during the Sale/Fulfillment.
- Enrolling equipment in a plan with or without a line of service.
- Selling a plan in a fulfillment model where the equipment ID is not known at the time of sale. In this case an eligibility check must occur at the time of fulfillment.
- Enforcing cancelation and refunding rules as may be required by the third-party administrator.
- Disconnecting, hotlining or suspending a line of service without losing coverage for the device.

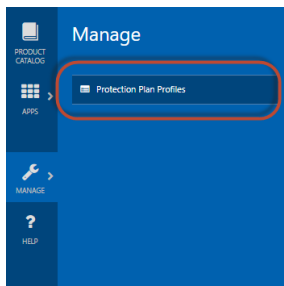
4.1 ADDING AND MANAGING PROTECTION PLAN PROFILES

Protection plan profiles specify rules for processing protection plans, including provisioning settings if needed. Profiles are set up in the Product Catalog web application. **Note:** Set up profiles *before* configuring protection plan products in CostGuard Client Product Catalog as the protection plan profiles must be specified when you configure the products.

To begin, access the Product Catalog web application via the web *Apps* tray.



In Product Catalog navigate to the Protection Plan Profiles page by choosing **MANAGE > Protection Plan Profiles**.



The Protection Plan Profiles page lists the existing profiles and lets you:

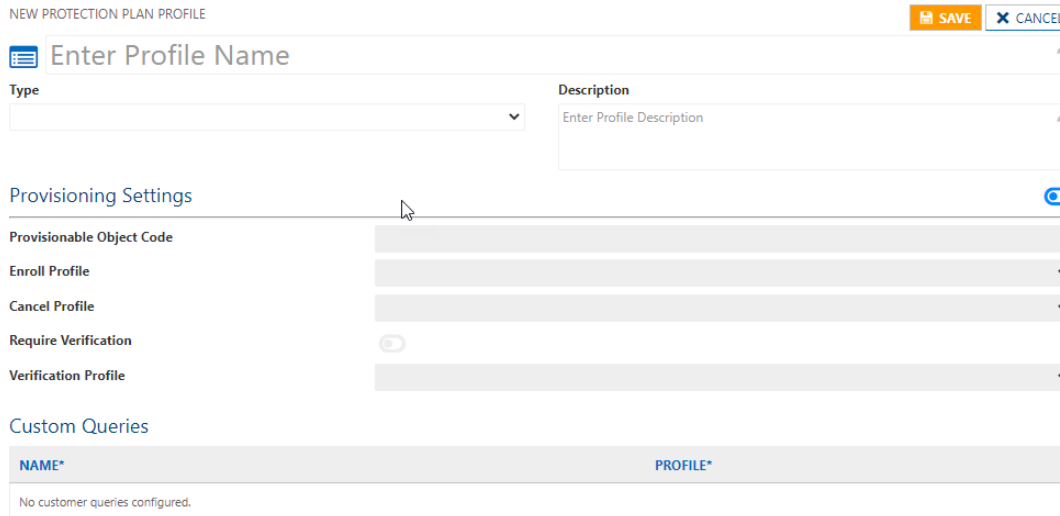
- add new profiles
- display a detail view where the selected profile can be edited
- enter search criteria to filter the profile list and make it easier to navigate

Protection Plan Profiles

NAME ^	DESCRIPTION	TYPE	LAST MODIFIED	LAST MODIFIED BY
AppleCare - Monthly		Apple Care	9/22/21 11:02 AM	jhart
AppleCare - Pay Up Front		Apple Care	6/21/21 4:49 PM	jhart
Samsung			4/23/21 11:43 AM	jhart

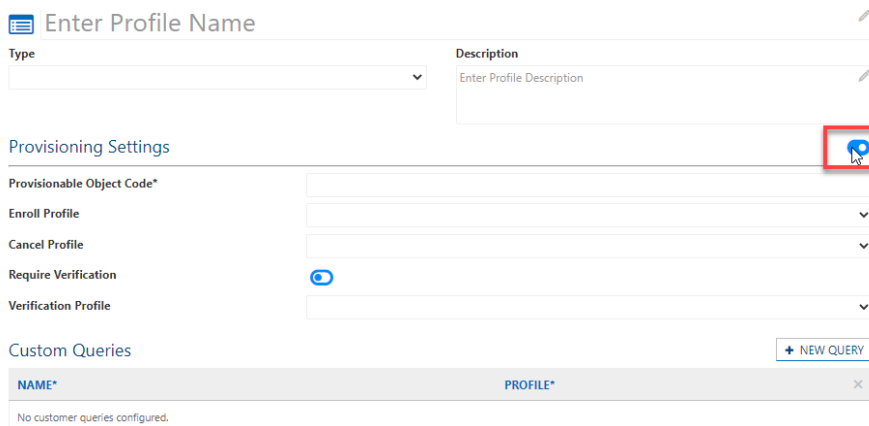
4.1.1 ADDING A NEW PROFILE

A profile consists of a Name, Description, Type, and Provisioning Settings. Click **+NEW PROFILE** to display the New Protection Plan Profile dialog.



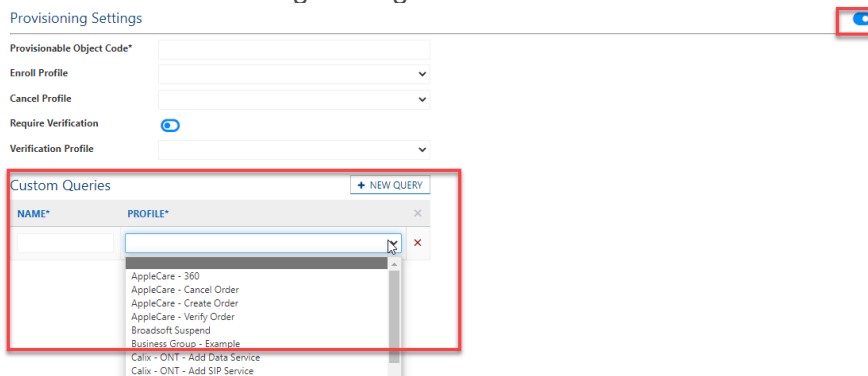
Use this dialog to specify:

- **Profile Name** - This is the only required field.
- **Description** – This is optional.
- **Type** – This can drive downstream functionality as may be required by a plan covering a specific device (e.g. fields that may be needed to complete enrollment). The drop down menu defaults to blank (null entry) which sets the Type to *Generic*. *Apple Care* is also available as a Profile Type. **Note:** Other Profile Types can be created via the Adaptive Request process.
- **Provisioning Settings** – These settings only apply if you’re using CostGuard Provisioning to provision the plan. These settings are disabled by default. To enable the fields (only if needed), toggle the enable/disable button at the far right (shown enabled).



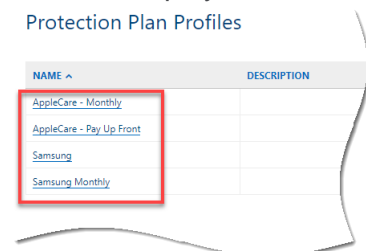
Once enabled you can specify the following:

- **Provisionable Object Code** - Enter the provisionable object code that was configured in the Provisioning application.
- **Enroll Profile** – This is the provisioning profile (as configured in Provisioning) to use on provisioning request to enroll a device in a plan.
- **Cancel Profile** – This is the provisioning profile to use on canceling a plan.
- **Require Verification** – If you choose to require verification, any protection plan that uses this profile must be verified by the 3rd party *plan administrator* before you add the plan to a customer’s account and enroll the customer in the plan. Use the *Require Verification* button to toggle this functionality on/off. When on, the Verification Profile drop down menu is enabled and a profile must be selected. The verification step is completed when you add/sell a plan using this profile.
- **Verification Profile** - This is the provisioning profile (as configured in Provisioning) to use when the *verify* provisioning request is sent.
- **Custom Queries** – This section lets you add provisioning actions (in addition to Enroll and Cancel) as may be required by your third-party protection plan administrator. Enter a unique **NAME**. This field does not allow spaces. Use the underscore in lieu of a space. Then select a Provisioning Profile (configured in the Provisioning web app) from the **PROFILE** drop-down menu. Any custom queries you add will be available in the **Actions** drop-down menu on the protection plan’s Detail view in Customer Care. **Note:** The **NEW QUERY** button is only available when Provisioning Settings is enabled.



4.1.2 VIEWING/EDITING PROFILE DETAILS

You can display a detail view for an existing profile by clicking the on the *Name* link.



The detail view is equivalent to the New Plan Profile dialog and lets you edit profile parameters.

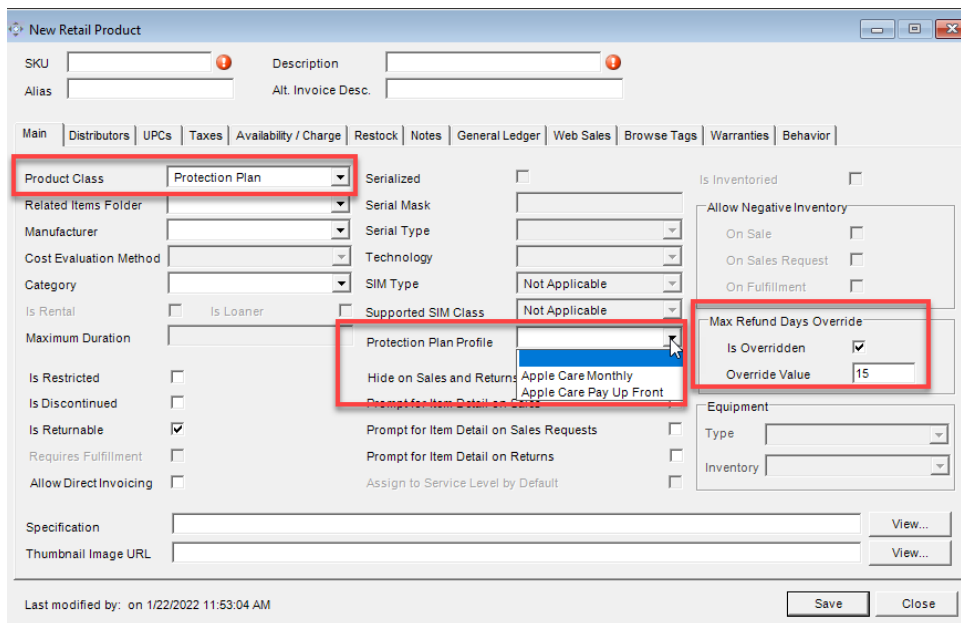
4.2 SETTING UP PROTECTION PLAN PRODUCTS IN THE COSTGUARD CLIENT PRODUCT CATALOG

You can set up *recurring charge* and *pay-up-front* protection plans in CostGuard Client Product Catalog. Pay-up-front plans are configured as *retail* products. Recurring charge plans are configured as *billing products* (or *packages*). In both cases, the products must be assigned to a *Protection Plan* Product Class and be associated to a specific Protection Plan Profile.

4.2.1 CONFIGURING A PAY UP FRONT PLAN

To set up a pay up front plan:

- Create a new retail product.
- Set the *Product Class* to **Protection Plan**.
- Select the profile from the *Protection Plan Profile* drop down menu (enabled when *Product Class* = **Protection Plan**).
- As an option you can also override the Register Policy setting for *Refund Days Limit* as may be required when your third-party plan administrator’s rule for refunds (number of days limit) differs from your business rules.
 - The **Override Value** is only editable and observed when **Is Overridden** is checked (enabled). The value can be any integer greater than or equal to 1.
 - When an override is specified, the logic that observes Max Refund Days in CostGuard Client, Order Placement and Catalog Service web services will observe the override rather than the Register Policy setting.



The screenshot shows the 'New Retail Product' configuration window. Key elements are highlighted with red boxes:

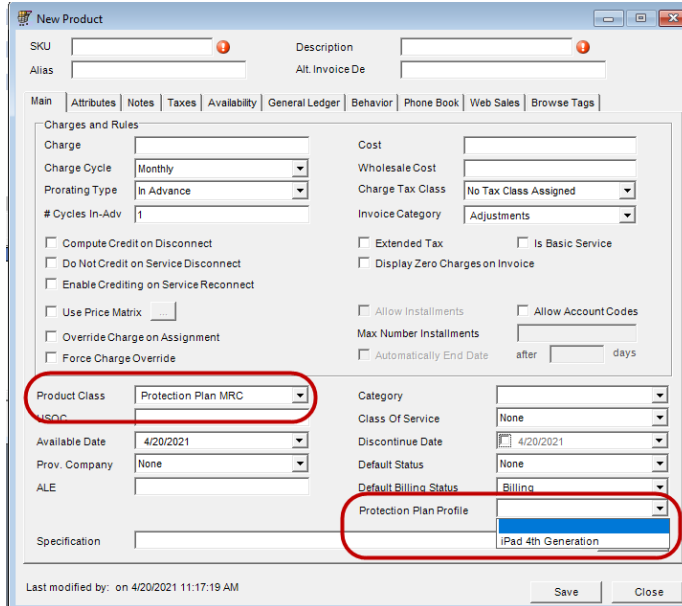
- Product Class:** Set to 'Protection Plan'.
- Protection Plan Profile:** A dropdown menu is open, showing 'Apple Care Monthly' and 'Apple Care Pay Up Front'.
- Max Refund Days Override:** The 'Is Overridden' checkbox is checked, and the 'Override Value' is set to 15.

Other visible fields include SKU, Description, Alias, Alt. Invoice Desc., Serialized, Serial Mask, Serial Type, Technology, SIM Type, Supported SIM Class, Is Inventoried, Allow Negative Inventory, On Sale, On Sales Request, On Fulfillment, Is Rental, Is Loaner, Maximum Duration, Is Restricted, Is Discontinued, Is Returnable, Requires Fulfillment, Allow Direct Invoicing, Specification, and Thumbnail Image URL.

4.2.2 CONFIGURING A PLAN FOR RECURRING BILLING

To set up a recurring charge plan:

- Create a new billing product or package.
- Set the *Product Class* to **Protection Plan**.
- Select the profile from the *Protection Plan Profile* drop down menu.



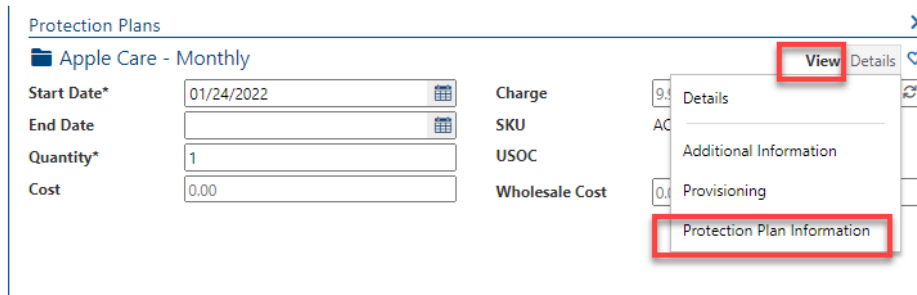
The screenshot shows the 'New Product' configuration window. The 'Product Class' dropdown menu is highlighted with a red circle and set to 'Protection Plan MRC'. The 'Protection Plan Profile' dropdown menu is also highlighted with a red circle and set to 'iPad 4th Generation'. Other visible fields include 'SKU', 'Description', 'Alias', 'Alt Invoice De', 'Charge Cycle' (Monthly), 'Prorating Type' (In Advance), '# Cycles In-Adv' (1), 'Wholesale Cost', 'Charge Tax Class' (No Tax Class Assigned), 'Invoice Category' (Adjustments), 'Category', 'Class Of Service' (None), 'Discontinue Date' (4/20/2021), 'Default Status' (None), 'Default Billing Status' (Billing), and 'Specification'.

4.3 SELLING PROTECTION PLANS IN THE ORDERS WEB APPLICATION

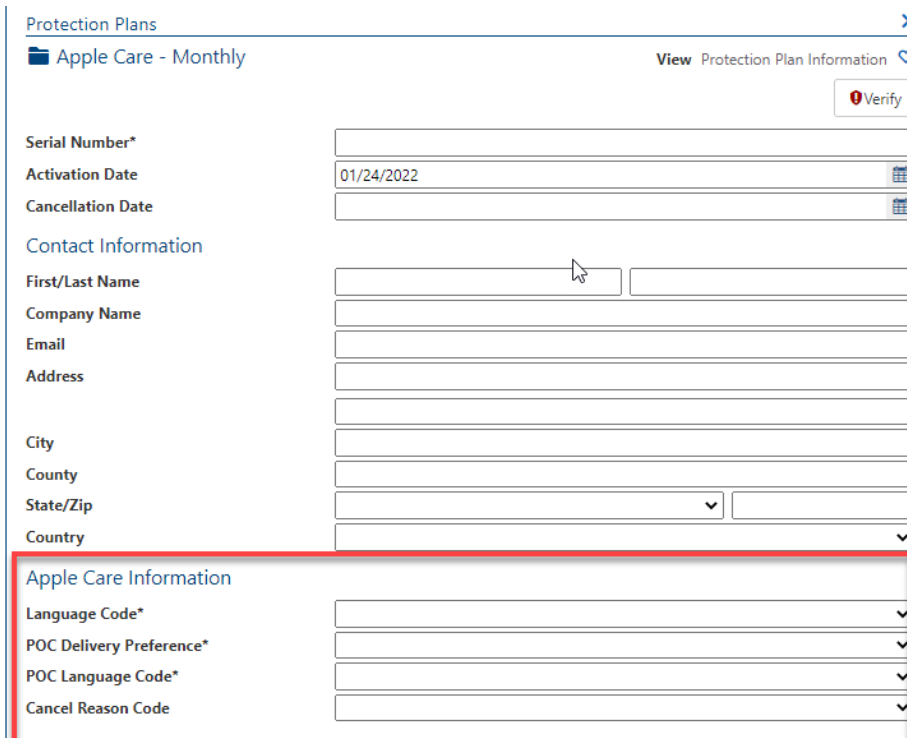
You can add products or packages marked with a Product Class of *Protection Plan* to an order just like you would any other item (Orders Web App > New > select customer > Add Item).

Note: Add the monthly recurring charge product at the customer account level. This lets subscribers disconnect their line of service and still maintain a protection plan agreement.

When items with *Product Class* = **Protection Plan** are staged, you can use the **View** menu to select **Protection Plan Information** to enter the information required to enroll in the plan.



Fields for Serial Number, Activation Date, Cancellation Date and Contact Information are common to all protection plans. Additional information may be required depending on the profile on which the plan is based, for example *Apple Care Information* as shown below. An asterisk (*) denotes a required field, and any required fields left NULL will highlight yellow if you attempt to click **ADD TO ORDER**, and the item will not be added.



If you add a package that has protection plan packages or products within it, all protection plans will stage, along with the root-level package itself:

ADD TO ORDER
CANCEL

Account Level		View Details	
Root Lvl Package with Protection Plan Products			
Start Date*	<input type="text" value="06/15/2021"/>	Charge	<input type="text" value="0.00"/>
End Date	<input type="text"/>	SKU	Pkg_Root
Quantity*	<input type="text" value="1"/>	USOC	
Cost	<input type="text" value="0.00"/>	Wholesale Cost	<input type="text" value="0.00"/>

Account Level		View Details	
Child Package that is Protection Plan			
↳ Pkg_Root			
Start Date*	<input type="text" value="06/15/2021"/>	Charge	<input type="text" value="0.00"/>
End Date	<input type="text"/>	SKU	Ch_Pkg_PP
Quantity*	<input type="text" value="1"/>	USOC	
Cost	<input type="text" value="0.00"/>	Wholesale Cost	<input type="text" value="0.00"/>

Account Level		View Details	
Child Product (Protection Plan)			
↳ Pkg_Root » Ch_Pkg_with_PP_Prod			
Start Date*	<input type="text" value="06/15/2021"/>	Charge	<input type="text" value="99.99"/>
End Date	<input type="text"/>	SKU	Ch_Product_PP
Quantity*	<input type="text" value="1"/>	USOC	
Cost	<input type="text" value="24.99"/>	Wholesale Cost	<input type="text" value="0.00"/>

Only items with Product Class = **Protection Plan** will have **Protection Plan Information** available in the **View** menu, and any required information must be filled in for *all* staged items before **ADD TO ORDER** will proceed with adding all items currently staged.

Once added to an order, you can still make changes to the protection plan information by re-staging it (clicking on the item) and clicking the Edit icon. The item can also be taken out of the order with the Remove icon. This can be done as many times as necessary prior to submitting the order.

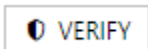
Note: Once the order is complete, the protection plan will be listed on the Protection Plans page on the account in Customer Care.

4.3.1 VERIFYING A PROTECTION PLAN THROUGH ORDERS

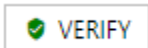
If verification is required for the selected protection plan profile, the protection plan cannot be added to the order until verification has completed successfully. Similarly, if verification was completed, but then information on the form was changed, the protection plan cannot be added until the information is re-verified successfully.

VERIFY button state changes:

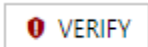
- If verification is allowed but has yet to occur, the icon on the button will be black and white



- Once verification has successfully been completed, the icon will convert to a green shield with a check mark

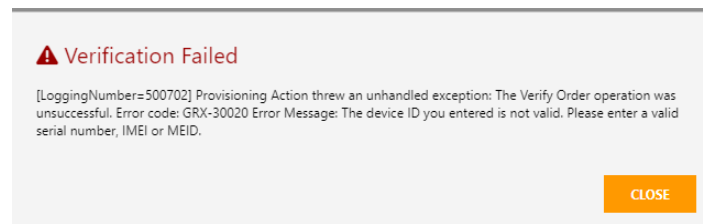


- If the selected protection plan profile is configured to require verification and verification has yet to occur (or information on the page was changed since the last successful verification), the shield will be red to indicate *requires verification*.



Note: If the protection plan being added has a protection plan profile that allows verification (a Verification Profile is configured), the **VERIFY** button will be available; even if a protection plan is unchanged and verification was successful. You can always re-verify. The last verification must have been successful for the protection plan to be added to the order.

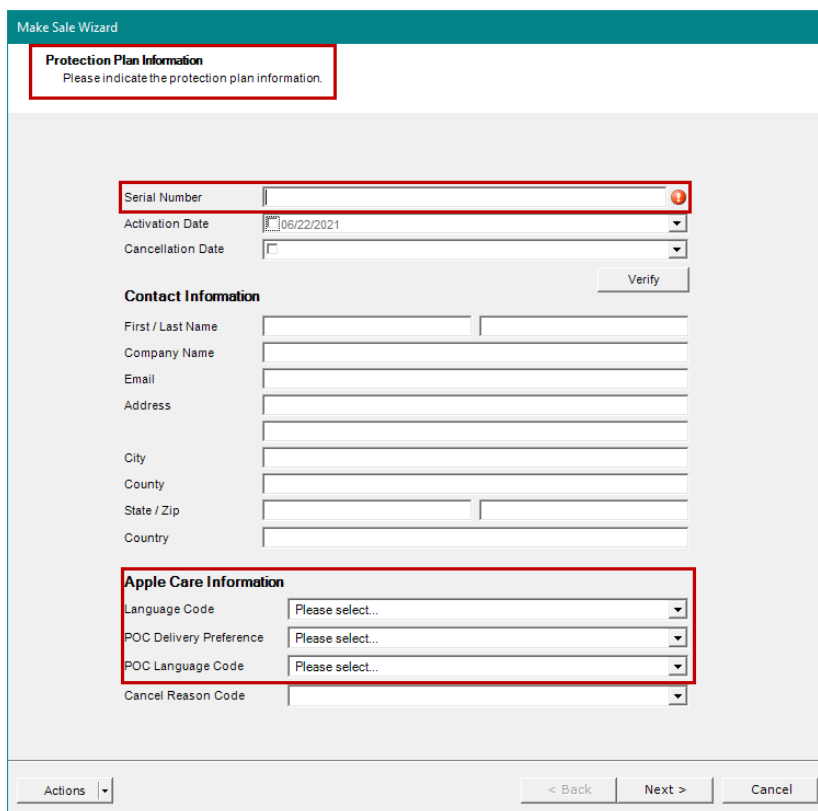
If verification fails in the Orders web application, the system will produce an error message.



4.4 SELLING PROTECTION PLANS IN POS MAKE SALE

When a product, package, or retail product with *Product Class* = **Protection Plan** is sold through POS, the Make Sale Wizard includes an additional *Protection Plan Information* page with required and optional fields be filled in before proceeding. Serial Number, Activation Date, Cancellation Date, and Contact Information fields are common to all plans. Additional field may be displayed depending on the associated protection plan profile. For example, if the plan's associated profile type is *Apple Care*, the Apple Care Information fields will also display with the Language Code, POC Delivery Preference, and POC Language Code being required.

Note: The serial number will be auto-populated if a serialized handset was sold earlier in the Make Sale flow.



Make Sale Wizard

Protection Plan Information
Please indicate the protection plan information.

Serial Number

Activation Date

Cancellation Date

Contact Information

First / Last Name

Company Name

Email

Address

City

County

State / Zip

Country

Apple Care Information

Language Code

POC Delivery Preference

POC Language Code

Cancel Reason Code

If the protection plan profile is configured to allow verification (a Verification Profile is assigned), the **Verify** button will be available, and you cannot proceed to the next page without Verification if the has not completed successfully.

The verification on this screen follows the same business rules as verification in Orders and Customer Care, in that if required, you cannot proceed until a successful verification, and if information on the screen is changed between successful verification and proceeding to the next page, the plan must be successfully verified again to continue.

If verification fails in POS, hover over the red X to review the error message.

Make Sale Wizard

Protection Plan Information
Please indicate the protection plan information.

Serial Number: CCKCJ051PLJY
Activation Date: 01/28/2022
Cancellation Date: []

Contact Information

First / Last Name: []
Company Name: []
Email: jhart@idibilling.com
Address: []
City: []
County: []
State / Zip: [] []
Country: []

Apple Care Information

Language Code: English
POC Delivery Preference: Email
POC Language Code: English
Cancel Reason Code: []

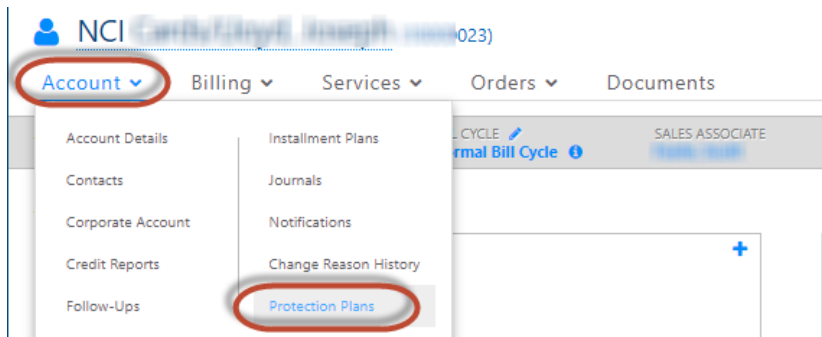
Verification Result: [X] Verify

[LoggingNumber=500702] Provisioning Action threw an unhandled exception: The Verify Order operation was unsuccessful.
Error code: GRX-30020
Error Message: The device ID you entered is not valid. Please enter a valid serial number, IMEI or MEID.

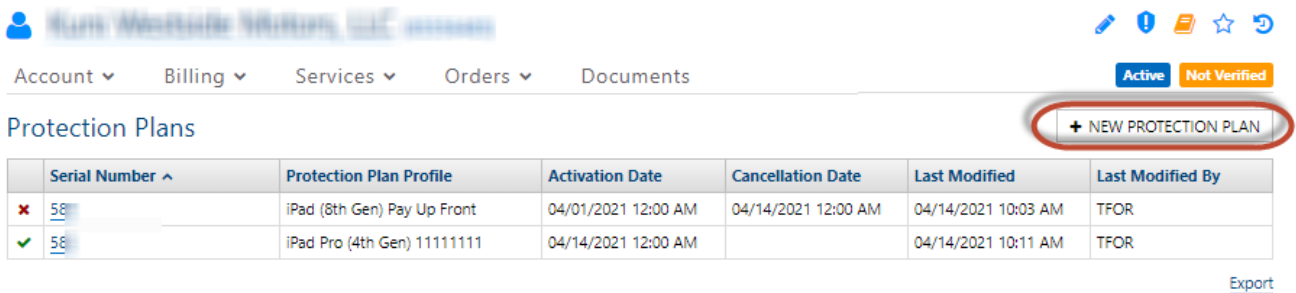
Actions: [] < Back Next > Cancel

4.5 ADDING AND MANAGING PROTECTION PLANS ON AN ACCOUNT

Customer Care lets you add and manage protection plans on an account independent of POS or web-based Orders. Management functions include enrolling and canceling. Other options may also be available, depending on the profile configuration. This functionality is available by selecting **Account > Protection Plans** from the Customer menu.



This displays the Protection Plans page.



Whether or not the plan is active is indicated in the far left column:

- Green check = active (enrolled)
- Red X = inactive (canceled)
- Blank = no actions have been performed on this plan

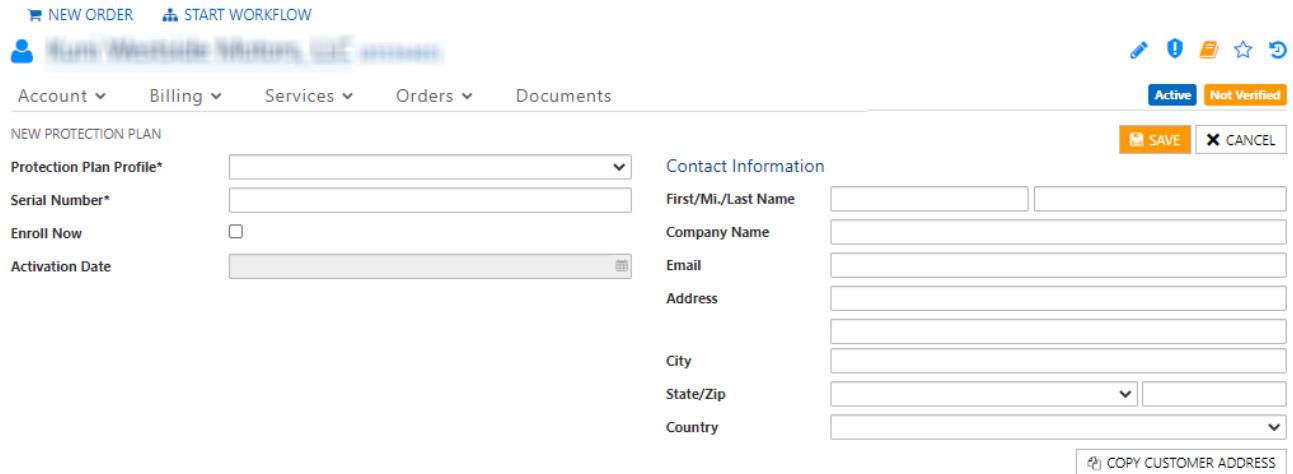


From the Protection Plans page you can add a new plan, display a detail view for a selected plan where you can submit an *enroll* or *cancel* request, or export the Protection Plans list.

4.5.1 ADDING A NEW PLAN

Note: There is no associated charge when adding plans to an account in this manner. If you need to collect revenue for the plan, it is recommended to create an order.

To add a new plan, click **+NEW PROTECTION PLAN** in the upper right side. This displays the New Protection Plan dialog.



NEW PROTECTION PLAN

Protection Plan Profile*

Serial Number*

Enroll Now

Activation Date

Contact Information

First/Mi./Last Name

Company Name

Email

Address

City

State/Zip

Country

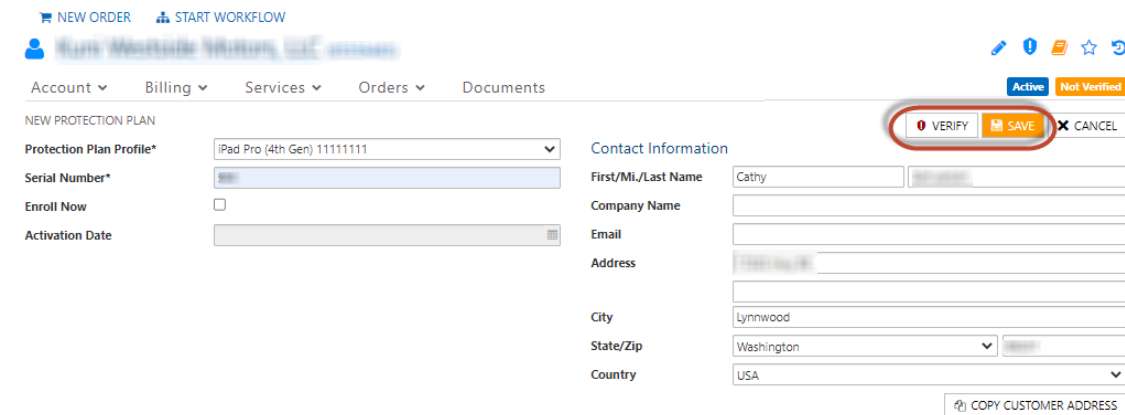
SAVE CANCEL

COPY CUSTOMER ADDRESS

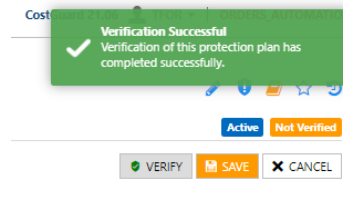
From here specify:

- **Protection Plan Profile** – Select a protection plan profile from the drop down menu. This field is required.
- **Serial Number** – Enter the device serial number. This field is required.
- **Enroll Now** – You can choose to enroll the device in the plan on a specified activation date by checking this box, or defer enrollment until later. An enrollment action is available via the Plan *Detail* view if you choose not to enroll now.
- **Activation Date** – This field is enabled when you check the **Enroll Now** check box. Select a date on which to enroll in the plan. If **Enroll Now** is not checked this field is disabled.
- **Contact Information** – You may fill in the individual fields to specify a contact other than the customer or click **COPY CUSTOMER ADDRESS** to auto-fill using the customer information.

Note: If the selected protection plan profile has been configured to require verification, you won't be permitted to save and submit an enroll request on the account until you verify the profile by clicking the **VERIFY** button in the upper right corner.



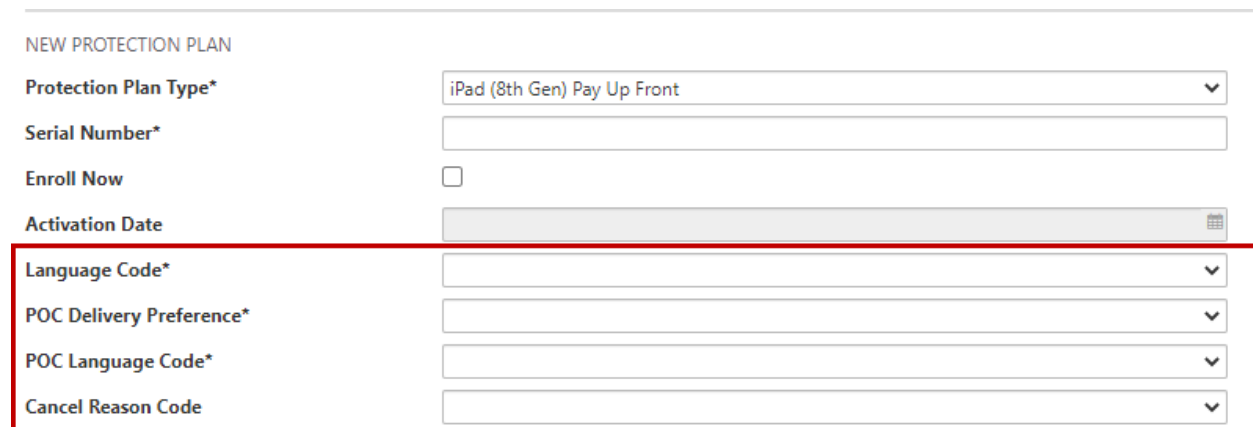
If the verification is successful, you'll see a green banner to indicate success.



Additional Apple Care Fields

The following required fields are displayed when the associated profile type is **Apple Care**:

- Language Code
- POC Language Code
- POC Delivery Preference
- Cancel Reason Code



The values in these drop-down menus are driven by Workflow Management configuration.

4.5.2 VIEWING/EDITING PLAN DETAILS

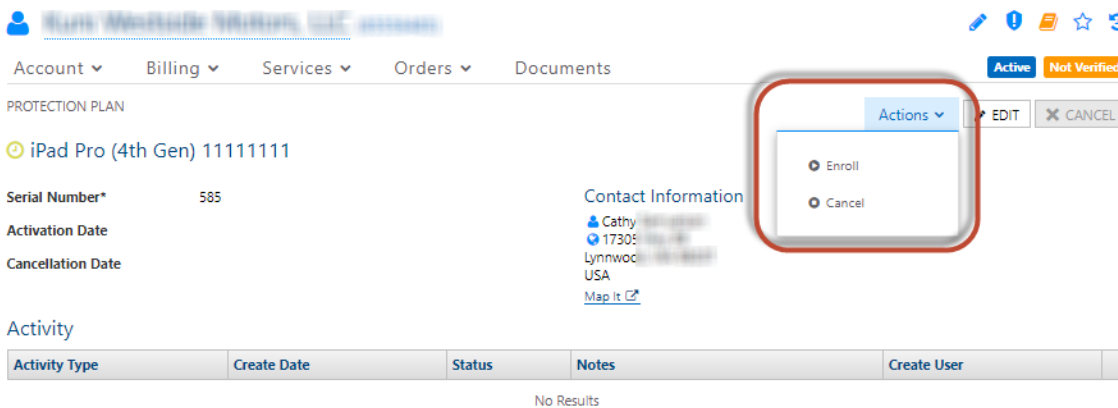
The detail view lets you edit information entered when the plan was added. It provides a history of provisioning actions for the plan. The **Actions** menu lets you initiate provisioning actions. To display the detail view for a plan, click the Serial Number link.

Protection Plans

Serial Number	Protection Plan Profile
JCRE Full Contact	Testing Name 656224

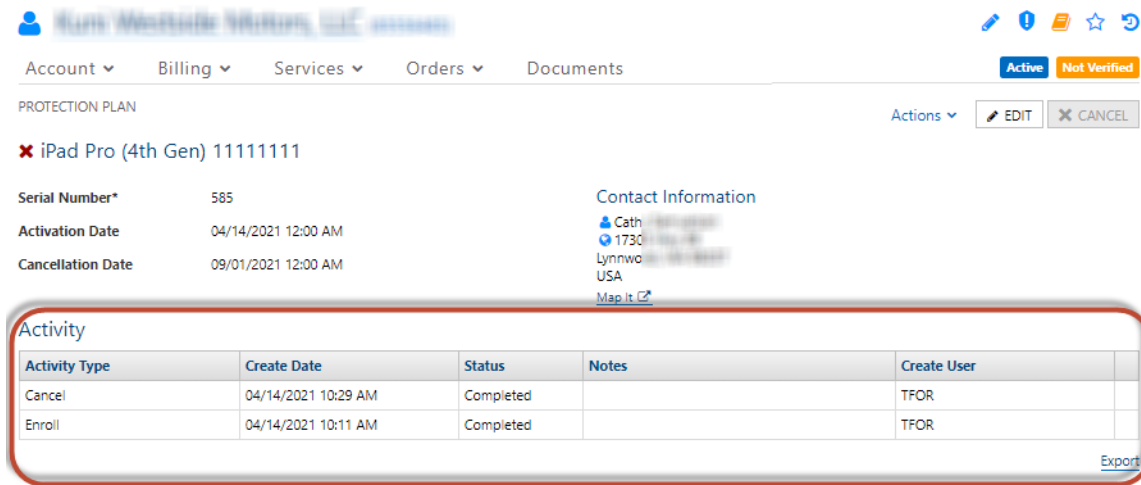
The content of the **Actions** menu depends on the plan's current enrollment status as well as the profile configuration.

- The **Actions** menu provides both **Enroll** and **Cancel** options when no requests have been submitted yet. **Note:** *Cancel* may apply here because the plan may have a pending activation date (set up using the *Enroll Now* option).
- If the plan is currently enrolled (indicated by a green check) the only option available is **Cancel**. Likewise, if the plan has been canceled (indicated by a red X) the only option is to **Enroll**.
- Additional options are provided if the associated profile has custom queries configured to support custom provisioning actions.



The screenshot displays the user interface for a protection plan. At the top, there are navigation tabs for Account, Billing, Services, Orders, and Documents. The plan name is "iPad Pro (4th Gen) 11111111" with a serial number of 585. Contact information for Cathy is listed. An "Actions" dropdown menu is open, showing "Enroll" and "Cancel" options. Below the plan details is an "Activity" table with columns for Activity Type, Create Date, Status, Notes, and Create User, which currently shows "No Results".

The Activity history grid lists all *Enroll* and *Cancel* requests.



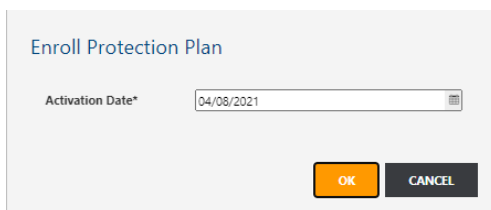
The screenshot shows the user interface for a device. At the top, there's a navigation bar with 'Account', 'Billing', 'Services', 'Orders', and 'Documents'. Below that, the device name 'iPad Pro (4th Gen) 11111111' is displayed. A table shows details for the device, including Serial Number (585), Activation Date (04/14/2021 12:00 AM), and Cancellation Date (09/01/2021 12:00 AM). To the right, there's contact information for 'Cath' at '1730 Lynnwood'. Below this, an 'Activity' table is highlighted with a red border. The table has columns for Activity Type, Create Date, Status, Notes, and Create User. It lists two activities: a 'Cancel' request on 04/14/2021 at 10:29 AM and an 'Enroll' request on 04/14/2021 at 10:11 AM, both with a status of 'Completed' and created by 'TFOR'. An 'Export' link is visible at the bottom right of the table.

Activity Type	Create Date	Status	Notes	Create User
Cancel	04/14/2021 10:29 AM	Completed		TFOR
Enroll	04/14/2021 10:11 AM	Completed		TFOR

When provisioning is required, the Status is *Pending* until the request is completed. The Activity history for a plan can be exported to a spreadsheet by clicking the **Export** link below the list.

Enrolling in a Plan

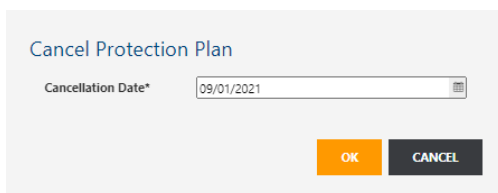
If you deferred enrollment when the plan was added, or if you subsequently canceled the plan, you can enroll/re-enroll via the detail view. To do this choose **Actions** > **Enroll**. This displays a dialog to specify an Activation Date (defaults to today).



The dialog box is titled 'Enroll Protection Plan'. It contains a text input field for 'Activation Date*' with the value '04/08/2021'. At the bottom, there are two buttons: 'OK' and 'CANCEL'.

Canceling a Plan

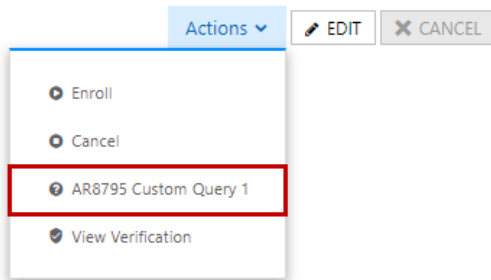
To cancel an active plan, choose **Actions** > **Cancel**. This displays a dialog for specifying the cancellation date.



The dialog box is titled 'Cancel Protection Plan'. It contains a text input field for 'Cancellation Date*' with the value '09/01/2021'. At the bottom, there are two buttons: 'OK' and 'CANCEL'.

Custom Provisioning Actions

The **Actions** menu provides additional provisioning actions if the profile associated to the selected plan has custom queries configured.



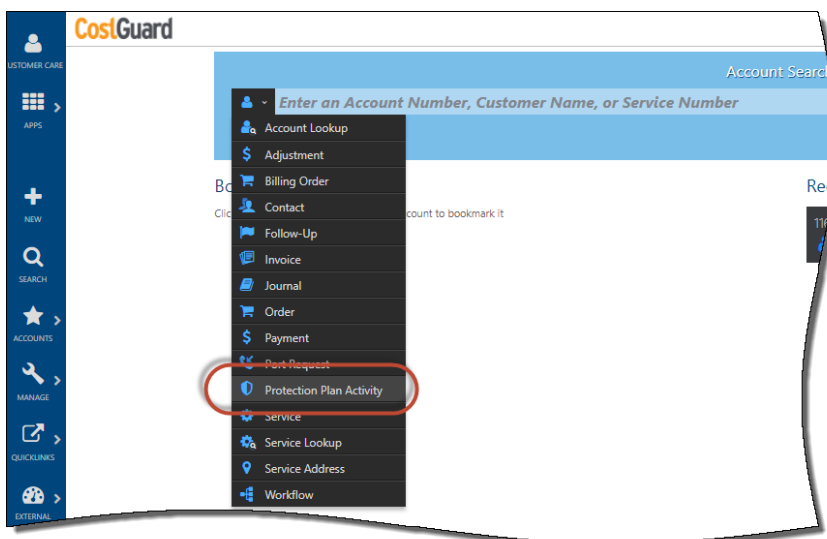
Each menu option will invoke the query operation with the name of the query, wait for the provisioning request to complete, then display the contents of the response once completed.

This is similar to existing *Switch Query* functionality, which is available on the Services and Features page in Customer Care under the **Query** menu (in the right pane when you select an item in the left pane).

Note: You won't be permitted to initiate another activity if one is currently in process.

4.5.3 PROTECTION PLAN SEARCH

The OmniSearch in Customer Care has an option to search on **Protection Plan Activity**.



The basic search lets you enter an account or serial number. **More Options** provides additional criteria including activity, profile type, modify date and provisioning status.

Protection Plan Activity Search

0 - Enter an Account Number or Serial Number Fewer Options

Last Modified From: Last Modified To: Type:

Activity Type: Provisioning Status:

Clear Options **SEARCH**

- Cancelled
- Completed
- In Error
- In Progress
- Pending
- Submitted

Bookmarked Accounts
Click the star icon on a recently viewed account to bookmark it

The results list details for matches found. Clicking a link in the *Account Number* column opens the applicable customer account. Clicking the link in the *Status* column opens a new tab showing the applicable provisioning request in the Provisioning web application.

Protection Plan Activity Search

0 - Enter an Account Number or Serial Number Fewer Options

Last Modified From: Last Modified To: Type:

Activity Type: Provisioning Status:

Clear Options **SEARCH**

ID	Protection Plan Profile	Account Number	Customer Name	Serial Number	Activity Type	Status	Notes	Last Modified Date
6	iPad Pro (4th Gen) 11111111	85556485	Kuri Westside Motors, LLC	585	Cancel	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '585'.	05/18/2021 10:43 AM
5	iPad (8th Gen) Pay Up Front	85556485	Kuri Westside Motors, LLC	1234okm	Enroll	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '1234okm'.	05/18/2021 9:12 AM
4	iPad (8th Gen) Pay Up Front	85556485	Kuri Westside Motors, LLC	1234qaz	Enroll	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '1234qaz'.	05/18/2021 9:12 AM
3	Apple Verify Required Profile	31425	FNBillable58407 M LBillable58407	10001000ABS	Enroll	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '10001000ABS'.	05/18/2021 12:46 AM
2	iPad Pro (4th Gen) Pay Up Front...	31424	FNBillable21654 M LBillable21654	10001000ABS	Cancel	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '10001000ABS'.	05/18/2021 12:46 AM
1	iPad Pro (4th Gen) Pay Up Front...	31423	FNBillable97811 M LBillable97811	10001000ABS	Enroll	Completed	Request was not sent but was automatically completed due to safeguard settings. InternalID '10001000ABS'.	05/18/2021 12:46 AM

[Export](#)

4.6 TRIGGER SUPPORT

When a Protection Plan is Created, Canceled, Enrolled, or Updated, triggers are now supported such that a Workflow can be configured to fire an action when one of these events occurs.

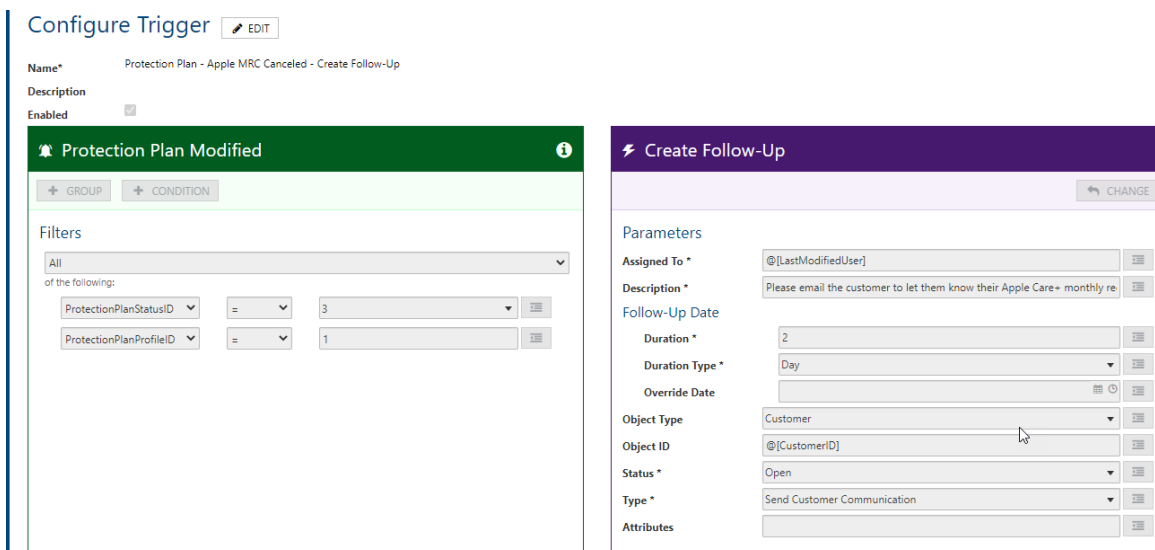
To be clear, these triggers are not to Create, Cancel, Enroll, or Update a Protection Plan, but rather when those activities occur on a Protection Plan, a Workflow can be configured such that an event will fire off to send an email, create a follow-up, or any other trigger-induced action.

Configurable Trigger Information:

- Protection Plan ID
- Protection Plan Profile ID
- Activation Date*
- Cancellation Date*
- Customer ID
- Protection Plan Status ID*
- Protection Plan Request Status ID*
- Auditable Fields

*Include ‘_Old’ (ex. There will be 'ActivationDate' as well as 'ActivationDate_Old')

Example:



The screenshot displays the 'Configure Trigger' interface, which is divided into two main sections: 'Protection Plan Modified' (left) and 'Create Follow-Up' (right).

Protection Plan Modified (Left Panel):

- Name:** Protection Plan - Apple MRC Canceled - Create Follow-Up
- Description:** [Empty]
- Enabled:**
- Filters:**
 - Group: All
 - Condition 1: ProtectionPlanStatusID = 3
 - Condition 2: ProtectionPlanProfileID = 1

Create Follow-Up (Right Panel):

- Assigned To:** @[LastModifiedUser]
- Description:** Please email the customer to let them know their Apple Care+ monthly re...
- Follow-Up Date:**
 - Duration: 2
 - Duration Type: Day
 - Override Date: [Empty]
- Object Type:** Customer
- Object ID:** @[CustomerID]
- Status:** Open
- Type:** Send Customer Communication
- Attributes:** [Empty]