

Subscribe Pro

Version 19.1.0



Table of Contents

1.	Summary	1-3
2.	Component Overview	2-4
2.1	Functional Overview	2-4
2.2	Use Cases	2-4
2.3	Limitations, Constraints	2-4
2.4	Compatibility	2-4
2.5	Privacy, Payment	2-4
3.	Implementation Guide	3-5
3.1	Setup	3-5
3.2	Configuration	3-5
3.3	Custom Code	3-5
3.4	External Interfaces	3-5
3.5	Testing	3-5
4.	Operations, Maintenance	4-6
4.1	Data Storage	4-6
4.2	Availability	4-6
4.3	Support	4-6
5.	User Guide	5-7
5.1	Roles, Responsibilities	5-7
5.2	Business Manager	5-7
5.3	Storefront Functionality	5-7
6.	Known Issues	6-8
7.	Release History	7-9

1. Summary

This document provides technical instructions for installing the Commerce Cloud Integration LINK integration that lets you integrate Subscribe Pro product subscriptions with a Commerce Cloud storefront.

This cartridge integrates Salesforce Commerce Cloud with the Subscribe Pro Subscription Commerce Platform.

This integration requires deployment of a new cartridge and modification of Storefront code.

A subscription to the Subscribe Pro solution is required to use this cartridge.
Sandbox (testing) environments are available.

Provided “int_subscribe_pro” cartridge is implemented using controllers architecture.

This integration is based on the Site Genesis demo store provided by Commerce Cloud.

2. Component Overview

2.1 Functional Overview

Subscribe Pro enables brands and retailers to add subscription commerce, auto-ship, continuity, clubs, boxes and recurring billing features to their existing eCommerce site, fully integrated with their existing eCommerce technology. Subscribe Pro supports recurring payments via credit card and eCheck, with pre-built integrations for all common payment gateways. Contact us today to find out how our solution can help you implement a product subscription program.

2.2 Use Cases

Scenario: A user visits a site that has subscription products available to purchase and would like to purchase those Products one time in order to try the product out before signing up for a recurring subscription.

Result: User will be presented with various options to subscribe to the subscription product with one of the options being a one time purchase. The user should be able to add this product to cart and checkout as if the product is a normal product in the catalog. Messaging should be present throughout checkout to inform the user that this is a one time purchase.

Scenario: A user visits a site that has subscription products available to purchase and would like to purchase a subscription product on a recurring interval automatically.

Result: User will be presented with various options to subscribe to the subscription product with one of the options being a subscription. The user should be able to add this product to cart and checkout as if the product is a normal product in the catalog. Messaging should be present throughout checkout to inform the user that this is a subscription purchase and display the interval they have chosen for repeat orders.

Scenario: A user has added some subscription products to their Basket and would like to adjust some of the values.

Result: User will be presented with options to change their subscription settings on the Cart Page. The user will also be able to click the “edit” link, on the subscription product, and change the subscription options in the quick view dialog.

Scenario: User has purchased a subscription product. The next time the ProcessSubproSubscriptions is run the necessary details about the customer and the products purchased will be transmitted to Subscribe Pro and the order will be marked as having been processed.

2.3 Limitations, Constraints

- Merchants must be enrolled at Subscribe Pro
- Subscription products must be configured at Subscribe Pro and Sales Force Commerce Cloud
- A Credit Card will be required for subscription products
- Customers must be logged into the storefront in order to purchase subscription products
- Customer must save their Credit Card to their account in order to purchase subscription products

2.4 Compatibility

Compatible OCAPI version: 19.8

Compatible Site Genesis version: 104.1.3

2.5 Privacy, Payment

Customer profile data and payment information will be transferred and stored at Subscribe Pro.

This information includes:

- Name
- Email
- Address Details
- Saved Payment Instrument ID

3. Implementation Guide

3.1 Setup

Subscribe Pro LINK integration uses the following cartridges:

- *int_subscribe_pro* – this cartridge contains all controllers, templates and scripts to create and display Subscribe Pro subscriptions. Also LINK-subscribe-pro contains the Business Manager XML imports such as the System Object Types customizations, services configurations and configuration of job for processing orders with pending subscription request.
- *app_storefront_controllers*,
- *app_storefront_core* – standard storefront cartridges with Subscribe Pro integrated. They can be used as an example for the integration and testing the cartridge.

Complete the following steps to install the cartridge.

Initial Install

See the Commerce Cloud documentation for adding a cartridge to your storefront:

https://documentation.demandware.com/DOC1/index.jsp?topic=%2Fcom.demandware.dochelp%2FSiteDevelopment%2FAddinganexistingcartridge toyourstorefront.html&cp=0_4_0_0_3

Note. You must also register the cartridge with the Business Manager site in order to run the Subscribe Pro jobs. Navigate to *Administration > Sites > Manage Sites > Business Manager > Settings tab*.

Update Site's cartridge path

1. Navigate to *Administration > Sites > Manage Sites > [SiteName] > Settings tab*.
2. Add “:int_subscribe_pro” to the effective cartridge path.
3. Click “Apply”.

Install Services

1. Navigate to *Administration > Operations > Import & Export > Services*
 - a. Import the profile and credentials found in the following XML
 - i. *LINK-subscribe-pro/Metadata/services/services-shared.xml*
 - b. Import the service definitions found in the following XML
 - i. *LINK-subscribe-pro/Metadata/services/services.xml*

Import Meta Data

1. Navigate to *Administration > Site Development > Import & Export > Meta data*.
2. Import the System Object custom attributes found in the following XML
 - a. *LINK-subscribe-pro/Metadata/meta/system-objecttype-extensions.xml*

After import, following system definition attributes should appear in the system:

System object definitions

CustomerAddress			
ID	Name	Type	Description
subproAddressID	Subscribe Pro Address ID	String	This attribute will contain the address id that is returned from Subscription Pro upon creating this address in the Subscribe Pro system.
CustomerPaymentInstrument			
ID	Name	Type	Description
subproPaymentProfileID	Subscribe Pro Payment Profile ID	String	This attribute will contain the payment profile id that is returned from Subscription Pro upon creating payment profile record in the Subscribe Pro system.
subproCCPrefix	Credit Card Prefix	String	This attribute will contain the first 6 digits of the customers Credit Card, to be sent to Subscribe Pro.
Order / Basket			
<i>Basket duplicates the order attributes so that they will automatically be passed from one to another.</i>			
ID	Name	Type	Description
subproContainsSubscriptions	Contains Subscriptions	Boolean	This attribute will be used to quickly assess if an order has subscriptions contained within it
subproSubscriptionsToBeProcessed	Subscriptions to be processed	Boolean	This attribute will note whether or not this order has subscriptions that need to be processed. This value will be set to true if any products in the basket have subscriptions and will be set to false after those subscriptions have been processed
OrderAddress			

ID	Name	Type	Description
subproAddressID	Subscribe Pro Address ID	String	This attribute will contain the address id that is returned from Subscription Pro upon creating this address in the Subscribe Pro system.
customerAddressID	SFCC Customer Address ID	String	This attribute will contain the SFCC customer address id. This information may be useful when a customer is updating subscription options after an order has been placed.
Product			
ID	Name	Type	Description
subproSubscriptionEnabled	Subscription Enabled	Boolean	This will decide whether or not the PDP should attempt to show subscription information
ProductLineItem			
ID	Name	Type	Description
subproSubscriptionOptionMode	Subscription Option Mode	String	This attribute will contain a value for whether or not if this product is subscription or a one time purchase. Possible values are: onetime_purchase subscription
subproSubscriptionSelectedOptionMode	Subscription Selected Option Mode	String	This attribute will contain subscription mode which was chosen on this ProductLineItem
subproSubscriptionInterval	Subscription Refill Interval	String	This attribute will contain the user selected time interval to refresh a subscription product
subproSubscriptionAvailableIntervals	Subscription Available Intervals	String	This attribute will contain a string with names of available subscription refill intervals, separated by comma
subproSubscriptionCreated	Subscription Created	Boolean	
subproSubscriptionDateCreated	Subscription Date Created	Date	
subproSubscriptionID	Subscription ID	String	This will be populated when the order processing occurs and the actual subscription is created.

subproSubscriptionDiscount	Subscription Discount	Double	This attribute will contain subscription discount offered on this product, as either a percentage or a fixed price, depending on the value of the subproSubscriptionIsDiscountPercentage property
subproSubscriptionIsDiscountPercentage	Subscription Is Discount Percentage	Boolean	This attribute will contain true if the discount on the product specified as a percentage or false if it is a fixed price amount.
Profile			
ID	Name	Type	Description
subproCustomerID	Subscribe Pro Customer ID	String	This attribute will contain the customer id that is returned from Subscription Pro upon creating this customers records in the Subscribe Pro system.
Site preferences <i>Please configure the following site preferences:</i>			
ID	Name	Type	Description
subproCheckoutLoginMsg	Subpro Checkout Login Message	String	This attribute will contain a message that informs customer that he/she needs to be logged in as a registered customer to proceed checkout with SubPro Subscription products
subproCreditCardRequirementMsg	Subpro Credit Card Requirement Message	String	This attribute will contain an error message noting that a credit card is required for subscriptions
subproOrderProcessingErrorMail	Subscribe Pro Order Processing Error Mail	String	An email address that order subscriptions processing failures will be sent to
subproWidgetScriptUrl	Subscribe Pro Widget Script Url	String	URL to Subscribe Pro Widget Script
subproApiBaseUrl	Subscribe Pro API Base Url	String	Subscribe Pro API Base URL
subproAPICredSuffix	Suffix to append to the Subscribe Pro Web Service Credentials	String	Suffix to append to the Subscribe Pro Web Service Credentials
Payment Card			
ID	Name	Type	Description
subproCardType	SubPro Card Type	String	Credit Card Type that matches the Credit Card Types at Subscribe Pro

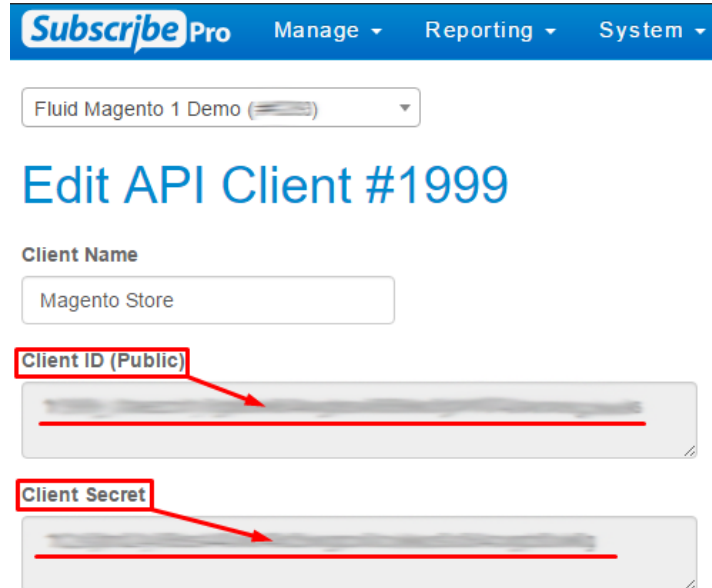
Import ProcessSubproSubscriptions job

1. Navigate to *Administration > Operations > Import & Export > Job Schedules*.
 2. Import the System Object custom attributes found in the following XML
 - a. *LINK-subscribe-pro/Metadata/jobs/process-orders-job.xml*
-

3.2 Configuration

Update Web Service Credentials

1. Get your Client ID and Client Secret in Subscribe Pro BM:
<https://platform.subscribepro.com/system/client>



Subscribe Pro Manage Reporting System

Fluid Magento 1 Demo

Edit API Client #1999

Client Name

Magento Store

Client ID (Public)

Client Secret

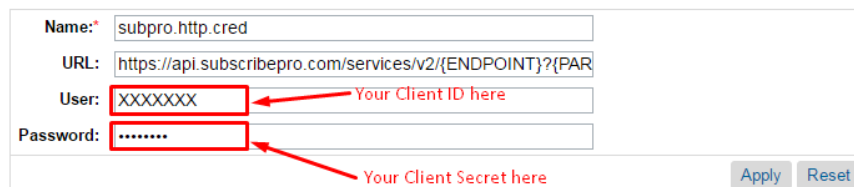
2. Navigate to *Administration > Operations > Services > Service Credentials > subpro.http.cred - Details*
3. Use Client ID as User and Client Secret as Password:

[Administration](#) > [Operations](#) > [Services](#) > [Service Credentials](#) > subpro.http.cred - Details

subpro.http.cred

Fields with a red asterisk (*) are mandatory. Click **Apply** to save the details. Click **Reset** to revert to the last saved state.

These credentials are used by 12 services.



Name: subpro.http.cred

URL: https://api.subscribepro.com/services/v2/{ENDPOINT}?{PAR

User: XXXXXXXX Your Client ID here

Password: ***** Your Client Secret here

Apply Reset

4. Navigate to *Administration > Operations > Services > Service Credentials > subpro.http.cred.oauth - Details*
5. Use Client ID as User and Client Secret as Password (the same as above).

Setup Schedule Job to process orders with pending subscriptions

The job will process all orders that have any subscriptions that need to be processed.

Configure job parameters:

1. Navigate to *Administration > Operations > Job Schedules > ProcessSubproSubscriptions* job.
2. On tab *Schedule and History* set run interval (default is every 15 minutes).
3. Open *Step Configurator* tab, choose *ProcessSubproSubscriptions-Process* workflow.
4. Set (**in hours**) custom parameter *ordersProcessInterval* to define what the start time for the search placed orders should be.
5. Click “Assign” button.

Configure Subscription Products

To configure products which will have a subscription you'll need to make changes to SFCC Business Manager as well as to Subscribe Pro Business Manager.

There are different type of products that can be configured:

- Standard Product
- Variation Product
- Variation Masters
- Product Bundles
- Product Sets
- Option Product

Below described action you need to perform to configure each type of product.

Standard Product

Standard Product is a product that is sold and displayed alone and does not have variations, such as different sizes or colors. If you include a standard product in a product set or product bundle, it is considered a set product or bundled product, and not a standard product.

Configuring Product on the Commerce Cloud Platform

The PDP page will take the Commerce Cloud Product ID and make an API request to the Subscribe Pro Products API Endpoint using the Commerce Cloud Product ID as the "sku" parameter. The following image shows the Product ID that should be configured as a SKU in the Subscribe Pro Platform.

The screenshot shows the 'General' tab of a product configuration page in SFCC Business Manager. The breadcrumb trail is 'Merchant Tools > Products and Catalogs > Products > 12345 - General'. The product ID '12345' is highlighted with a red box. A warning message states: 'You have not locked this product for editing. Click [Lock](#) if you need to edit the product.' Below this, there is a 'Select Language' dropdown set to 'Default'. The 'ID' field is also highlighted with a red box and contains the value '12345'. Other fields include 'Catalog' (apparel-catalog), 'Tax Class' (Standard), 'Searchable' (Default), and 'Searchable If Unavailable' (Default). There are also links for 'All Site Values'.

This API call will only be attempted if the Commerce Cloud Product has the: **Subscription Enabled** custom attribute set to: **true**.

The following image shows this setting in the following Business Manager Module:

Merchant Tools > Products and Catalogs > Products

The screenshot displays the 'Products' configuration page in the Business Manager. At the top, there is an 'HTML Editor' tab and a 'Refinement Color' dropdown set to '-None-'. Below this is a 'Search Refinements' section. The 'Skin Concern' dropdown is open, showing options: '-None-', 'dryTight (Dry, Tight Skin)', 'comprehensive (Comprehensive Protection)', and 'liftingLossFirm (Lifting & Loss of Firmness)'. The 'New Arrival?' dropdown is set to '-None-'. The 'Sheets' dropdown is open, showing options: '-None-', 'value1 (Value 1)', 'value2 (Value 2)', and 'value3 (Value 3)'. The 'On sale?' dropdown is set to '-None-'. A red rectangular box highlights the 'Subscribe Pro' section, which contains the 'Subscription Enabled' dropdown set to 'Yes'. Below this are sections for 'Clothing Attributes' (with a 'Style Number (10):' field), 'Men's Accessories Attributes' (with 'Size:' and 'Color:' fields), and a 'Back to List' button. At the bottom right, there are 'Apply', 'Reset', 'Copy', and 'Delete' buttons.

Configuring Product on the Subscribe Pro Platform

In addition to configuring the product on Commerce Cloud, the product will also need to be configured on the Subscribe Pro Platform.

<https://platform.subscribepro.com/login>

Subscription products can be managed on the platform at: *Manage > Subscription Products*

Within this module a new subscription product should be created that has a SKU that matches the Commerce Cloud Product ID.

The following is an example of a configured product that will match the product provided above for Commerce Cloud:

Fluid Magento 1 Demo (#2693)

Edit Product #587218 - "Trial Test Product"

Product Settings Product Trial Settings

Product Information

SKU Product Name
12345 Trial Test Product

☒ Show Product On Subscribe Pro Management UI

Subscription Widget - Subscription Option

Subscription Option Mode

Subscription and One-Time Purchase

Default Subscription Option

One-Time Purchase

Product Options Handling

Product Options Mode

Pass-through Options in Reorders

Product Shipping Options

Shipping Mode

Product Requires Shipping

Product Pricing and Subscription Discount

Full Price

\$ 100.00

☒ Discount By Percentage (Otherwise use Fixed Discount)

Discount Percentage

20.00 %

Fixed Discount Amount

\$ 0.00

Subscription Quantities

Min. Qty.

1

Max. Qty.

9

Product Intervals

Select which intervals shall be available for this product.

Drag the selected intervals into the order you wish them to appear in the subscription widget drop-down on your Magento site.

Unselected

30 Days

45 Days

Daily

Every 2 Weeks

Selected

Every 2 Months

Monthly

Weekly

Default Interval

Select the interval which should be selected by default for this product.

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Subscribe Pro Platform Version 1.2.1.24

Variation Product

Variation Product is a product that is a specific variation. For example, if a Vegas brand t-shirt is represented by a variation master, then a product variation is a size 10, blue Vegas brand t-shirt. Variation products associated with the same variation master share most of the attributes defined for the product master, but have their own product IDs and images.

Variation Products should be configured the same way as a "Standard Product". See instructions above.

Variation Masters

Variation Masters is a product that represents all the variations for a particular product. For example, a specific style of t-shirt.

A variation master cannot be purchased directly, only product variations with specific variation information can be purchased. For example, if a master has color and size variation attributes, you must specify the color and size of a specific variant to purchase it.

If you have more than three variation attributes, you might want to consider using options.

To enable subscriptions for variation master products:

1. A Subscribe Pro Subscription Product will need to be created for each of the Variants contained within the Master Variant.
2. The master variant will need to have the "Subscriptions Enabled" custom attribute set to "yes".
 - a. Any attributes set on the Master Product will flow down to all of the variant products, unless the variant product has overridden that particular attribute.

Example:

Master Product (in Commerce Cloud)

ID	Name
25752235	Checked Silk Tie

Variant Product(s) (in Commerce Cloud)

Parent ID	ID	Options
25752235	682875090845	Color: Cobalt
25752235	682875719029	Color: Navy
25752235	682875540326	Color: Yellow

Subscribe Pro - Subscription Products (in Subscribe Pro Platform)

ID	SKU	Name
587218	682875090845	Checked Silk Tie - Cobalt
587219	682875719029	Checked Silk Tie - Navy

587220	682875540326	Checked Silk Tie - Yellow
--------	--------------	---------------------------

Product Bundles

Commerce Cloud Digital product bundles:

- Are a separate product with its own SKU and price
- Are unaffected by the price of the individual products
- Contain specified products in specified numbers

In respect to subscription products, product bundles can be treated the same as product variants. The end user will select subscription options for the entire bundle and the single product ID for the bundle is what will be configured and transmitted to Subscribe Pro when creating subscriptions. See the instructions how to configure a Standard Product above.

Sales Force Commerce Cloud will automatically add all of the bundled products (children) to the Basket when the product bundle is added, whether it be from the storefront or from OCAPI.

The following is an example of an OCAPI request and response using product bundle: sony-ps3-bundle:

Request

```
{
  "customer_info": {
    "customer_no": "00000001",
    "email": "<EMAIL>"
  },
  "billing_address": {
    "first_name": "<FIRST>",
    "last_name": "<LAST>",
    "address1": "<STREET>",
    "city": "<CITY>",
    "state_code": "<STATE>",
    "country_code": "<COUNTRY>"
  },
  "product_items": [{
    "product_id": "sony-ps3-bundle",
    "quantity": 1
  }],
  "shipments": [{
    "gift": false,
    "shipping_method": {
      "id": "001"
    },
    "shipping_address": {
      "first_name": "<FIRST>",
      "last_name": "<LAST>",
      "address1": "<STREET>",
      "city": "<CITY>",
      "state_code": "<STATE>",
      "country_code": "<COUNTRY>"
    }
  }
} ] }
```

Response

```
{
  "_v": "17.3",
  "_type": "basket",
  "_resource_state": "22e95720919f1eaa894bda606664b5a61a9575e0a942a1452bbfdb7062da0f69",
  "_flash": [
    {
      "_type": "flash",
      "type": "PaymentMethodRequired",
      "message": "No payment method ID was specified. Please provide a valid payment method ID.",
      "path": "$.payment_instruments[0].payment_method_id"
    }
  ],
  "adjusted_merchandize_total_tax": 22.45,
  "adjusted_shipping_total_tax": 0.5,
  "agent_basket": true,
  "basket_id": "16f3006604e77fff7105caf63a",
  "billing_address": {
    "_type": "order_address",
    "address1": "<STREET>",
    "city": "<CITY>",
    "country_code": "<STATE>",
    "first_name": "<FIRST>",
    "full_name": "<FULL>",
    "id": "b600c40aec47165cacc48c7ad2",
    "last_name": "<LAST>",
    "state_code": "<STATE>"
  },
  "channel_type": "callcenter",
  "creation_date": "2017-04-19T15:26:23.314Z",
  "currency": "USD",
  "customer_info": {
    "_type": "customer_info",
    "customer_id": "abKT2hbWsyV8alhk6VJg90w0E",
    "customer_no": "00000001",
    "email": "<EMAIL>"
  },
  "last_modified": "2017-04-19T15:26:23.360Z",
  "merchandize_total_tax": 22.45,
  "notes": {
    "_type": "simple_link",
    "link": "https://subscribepro01-tech-prtnr-na02-dw.demandware.net/s/SiteGenesis/dw/shop/v17_3/baskets/16f3006604e77fff7105caf63a/notes"
  },
  "order_total": 481.94,
  "product_items": [
    {
      "_type": "product_item",
      "adjusted_tax": 22.45,
      "base_price": 449,
      "bonus_product_line_item": false,
      "bundled_product_items": [
        {
          "_type": "product_item",
          "adjusted_tax": null,
          "base_price": null,
          "bonus_product_line_item": false,
          "item_id": "94921b91f537474e71376abaf2",

```

```

        "item_text":"Sony Playstation 3 Game Console",
        "price":null,
        "price_after_item_discount":null,
        "price_after_order_discount":0,
        "product_id":"sony-ps3-console",
        "product_name":"Sony Playstation 3 Game Console",
        "quantity":1,
        "shipment_id":"me",
        "tax":null,
        "tax_basis":null,
        "tax_class_id":"standard",
        "tax_rate":0.05
    },
    {
        "_type":"product_item",
        "adjusted_tax":null,
        "base_price":null,
        "bonus_product_line_item":false,
        "item_id":"6356afd70d4a120da36a9d3baf",
        "item_text":"Nascar 09 (for Sony PS3)",
        "price":null,
        "price_after_item_discount":null,
        "price_after_order_discount":0,
        "product_id":"easports-nascar-09-ps3",
        "product_name":"Nascar 09 (for Sony PS3)",
        "quantity":1,
        "shipment_id":"me",
        "tax":null,
        "tax_basis":null,
        "tax_class_id":"standard",
        "tax_rate":0.05
    },
    {
        "_type":"product_item",
        "adjusted_tax":null,
        "base_price":null,
        "bonus_product_line_item":false,
        "item_id":"8b606524f0c7a7325cc4e4e23a",
        "item_text":"Monopoly Here and Now: The World Edition (for Sony PS3)",
        "price":null,
        "price_after_item_discount":null,
        "price_after_order_discount":0,
        "product_id":"easports-monopoly-ps3",
        "product_name":"Monopoly Here and Now: The World Edition (for Sony PS3)",
        "quantity":1,
        "shipment_id":"me",
        "tax":null,
        "tax_basis":null,
        "tax_class_id":"standard",
        "tax_rate":0.05
    },
    {
        "_type":"product_item",
        "adjusted_tax":null,
        "base_price":null,
        "bonus_product_line_item":false,
        "item_id":"0798adadda95b0a5c4d282980f",
        "item_text":"Eternal Sonata (for Sony PS3)",
        "price":null,
        "price_after_item_discount":null,
        "price_after_order_discount":0,
        "product_id":"namco-eternal-sonata-ps3",
    }

```

```

        "product_name": "Eternal Sonata (for Sony PS3)",
        "quantity": 1,
        "shipment_id": "me",
        "tax": null,
        "tax_basis": null,
        "tax_class_id": "standard",
        "tax_rate": 0.05
    },
    {
        "_type": "product_item",
        "adjusted_tax": null,
        "base_price": null,
        "bonus_product_line_item": false,
        "item_id": "b0bfeff3a8214ea603c570d73b",
        "item_text": "Warhawk (for Sony PS3)",
        "price": null,
        "price_after_item_discount": null,
        "price_after_order_discount": 0,
        "product_id": "sony-warhawk-ps3",
        "product_name": "Warhawk (for Sony PS3)",
        "quantity": 1,
        "shipment_id": "me",
        "tax": null,
        "tax_basis": null,
        "tax_class_id": "standard",
        "tax_rate": 0.05
    }
],
"item_id": "8ddceb64e1d3856008a753122a",
"item_text": "Playstation 3 Bundle",
"option_items": [
    {
        "_type": "option_item",
        "adjusted_tax": 0,
        "base_price": 0,
        "bonus_product_line_item": false,
        "item_id": "392333b488e166df0b46927548",
        "item_text": "Extended Warranty: None",
        "option_id": "consoleWarranty",
        "option_value_id": "000",
        "price": 0,
        "price_after_item_discount": 0,
        "price_after_order_discount": 0,
        "product_id": "000",
        "product_name": "Extended Warranty: None",
        "quantity": 1,
        "shipment_id": "me",
        "tax": 0,
        "tax_basis": 0,
        "tax_class_id": "standard",
        "tax_rate": 0.05
    }
],
"price": 449,
"price_after_item_discount": 449,
"price_after_order_discount": 449,
"product_id": "sony-ps3-bundle",
"product_name": "Playstation 3 Bundle",
"quantity": 1,
"shipment_id": "me",
"tax": 22.45,
"tax_basis": 449,

```

```

        "tax_class_id": "standard",
        "tax_rate": 0.05
    }
],
"product_sub_total": 449,
"product_total": 449,
"shipments": [
    {
        "_type": "shipment",
        "adjusted_merchandise_total_tax": 22.45,
        "adjusted_shipping_total_tax": 0.5,
        "gift": false,
        "merchandise_total_tax": 22.45,
        "product_sub_total": 449,
        "product_total": 449,
        "shipment_id": "me",
        "shipment_total": 481.94,
        "shipping_address": {
            "_type": "order_address",
            "address1": "<STREET>",
            "city": "<CITY>",
            "country_code": "<COUNTRY>",
            "first_name": "<FIRST>",
            "full_name": "<FULL>",
            "id": "29410763e35c40915b515a0cdd",
            "last_name": "<LAST>",
            "state_code": "<STATE>"
        },
        "shipping_method": {
            "_type": "shipping_method",
            "description": "Order received within 7-10 business days",
            "id": "001",
            "name": "Ground",
            "price": 9.99
        },
        "shipping_status": "not_shipped",
        "shipping_total": 9.99,
        "shipping_total_tax": 0.5,
        "tax_total": 22.95
    }
],
"shipping_items": [
    {
        "_type": "shipping_item",
        "adjusted_tax": 0.5,
        "base_price": 9.99,
        "item_id": "1ad26e6d3776f228e7d56228d7",
        "item_text": "Shipping",
        "price": 9.99,
        "price_after_item_discount": 9.99,
        "shipment_id": "me",
        "tax": 0.5,
        "tax_basis": 9.99,
        "tax_class_id": "standard",
        "tax_rate": 0.05
    }
],
"shipping_total": 9.99,
"shipping_total_tax": 0.5,
"taxation": "net",
"tax_total": 22.95
}

```

Product Sets

Product Set is a product that includes several products that are displayed together and can be purchased together or separately. For example, an accessories kit that includes a hairbrush, comb, and mirror, each of which can also be bought separately. Another common example is an outfit, with a jacket, shirt, and pants, which can be purchased together or each item can be purchased separately.

Unlike Product Bundles, Products Set Products are added to the cart individually. The end consumer has the option to add each product individually or to add all of the products at once.

When the consumer adds all of the products at once, the form fields for each individual product are preserved, for example quantity and subscription options.

Products within a product set can be configured the same as a standard product and the user will have the ability to configure the subscription options and interval for each individual product. See the instructions for configuring a Standard Product above.

Option Product

Commerce Cloud Digital, product options enable you to sell configurable products that have optional accessories, upgrades, or additional services. Options are always purchased with a product and cannot be purchased separately. They have their own price and display name, but do not have their own thumbnail images. They cannot be searched by the customer, but are usually visible on the product detail page.

Products that are configured with Product Options should be configured the same as a normal subscription product in Commerce Cloud and Subscribe Pro. The only difference with these products is that the Order Processing Script, that creates the subscription at Subscribe Pro, will also include any product options, selected for the product line item, in the platform_specific_fields attribute.

Subscribe Pro Subscription Request

```
{
  "subscription":{
    "customer_id":"348328",
    "payment_profile_id":"410028",
    "requires_shipping":true,
    "shipping_address_id":455367,
    "product_sku":"canon-powershot-e1",
    "qty":1,
    "use_fixed_price":false,
    "interval":"Month",
    "next_order_date":"2017-04-19T21:33:56.954Z",
    "first_order_already_created":true,
    "send_customer_notification_email":true,
    "platform_specific_fields":{
      "sfcc":{
        "product_options":[
          {
            "id":"digitalCameraWarranty",
            "value":"002"
          }
        ]
      }
    }
  }
}
```

```

    }
  }
}

```

These product options will need to be added to the Basket when recurring orders are placed through OCAPI. The following is an example of a Basket object, with a product option, that could be sent back to Commerce Cloud via OCAPI:

OCAPI Basket Object

```

{
  "customer_info": {
    "customer_no": "00000001",
    "email": "<EMAIL>"
  },
  "billing_address": {
    "first_name": "<FIRST>",
    "last_name": "<LAST>",
    "address1": "<STREET>",
    "city": "<CITY>",
    "state_code": "<STATE>",
    "country_code": "<COUNTRY>"
  },
  "product_items": [{
    "product_id": "samsung-hl72a650",
    "quantity": 1,
    "option_items": [
      {
        "option_id": "tvWarranty",
        "option_value_id": "002"
      }
    ]
  }],
  "shipments": [{
    "gift": false,
    "shipping_method": {
      "id": "001"
    },
    "shipping_address": {
      "first_name": "<FIRST>",
      "last_name": "<LAST>",
      "address1": "<STREET>",
      "city": "<CITY>",
      "state_code": "<STATE>",
      "country_code": "<COUNTRY>"
    }
  }
]}

```

Configure OCAPI client

Subscribe Pro will make use of the "Shop" Open Commerce API (OCAPI) in order to place recurring orders for subscription products. This will be accomplished server to server using a Business Manager login.

In Business Manager, under Administration > Site Development > Open Commerce API Settings, ensure that the resources and methods are configured to support the example configuration in the **Documentation/okapi-example-configuration.json** file.

Configure Payments

Subscribe Pro will make use of OCAPI to place orders on behalf of the customer. This is one of the reasons that a customer must be logged in and have a stored payment instrument in order to place an order with subscriptions.

Credit Cards

A Payment token and the Payment Instrument ID will be transmitted to Subscribe Pro as part of the Subscription creation process.

Credit Card tokenization will need to be implemented by a tokenization provider when this cartridge is implemented, on an actual site. This will be accomplished by making use of the: `setCreditCardToken` method in the: `PaymentInstrument` object.

See SFCC documentation:

https://documentation.demandware.com/DOC1/topic/com.demandware.dochelp/DWAPI/scriptapi/html/api/class_dw_order_PaymentInstrument.html

In order to provide an example of this, on the base site, some code has been added the `COBilling` controller to generate a random token for credit cards:

```
/**
 * This needs to be replaced with a valid PSP Tokenizer before going to production
 */
let random = new dw.crypto.SecureRandom();
let bytes = random.nextBytes(32);
let tokenString = newCreditCard.getUUID() + new Date().getTime() + bytes.toString();
let messageDigest = new dw.crypto.MessageDigest(dw.crypto.MessageDigest.DIGEST_SHA_512);
let hash = dw.crypto.Encoding.toBase64(messageDigest.digestBytes(new
dw.util.Bytes(tokenString)));

newCreditCard.setCreditCardToken(hash);
```

Subscribe Pro - Payment Profile

Payment profile should be used to pay for subscriptions.

The use of this profile could be divided into two steps:

- creating subscription
- recurring subscription charging

Creating subscription

As part of the order processing script, we send the relevant Payment Data to the Subscribe Pro using the `/vault/paymentprofile/external-vault end-point`.

The following is the relevant snippet of code in the Order Processing Logic:

`/int_subscribe_pro/cartridge/scripts/subpro/jobs/ProcessOrderSubscriptions.js`

```

/**
 * Apple Pay otherwise assume Credit Card
 */
if (paymentInstrument.getPaymentMethod() === "DW_APPLE_PAY") {
    let transactionID = paymentInstrument.getPaymentTransaction().getTransactionID();
    let response = SubscribeProLib.getPaymentProfile(null, transactionID);

    /**
     * If there was a problem creating the payment profile, error out
     */
    if (response.error) {
        logError(response, 'getPaymentProfile');
        continue;
    } else {
        paymentProfileID = response.result.payment_profiles.pop().id;
    }
} else {
    paymentProfileID = ('subproPaymentProfileID' in customerPaymentInstrument.custom) ?
customerPaymentInstrument.custom.subproPaymentProfileID : false;

    /**
     * If Payment Profile already exists,
     * Call service to verify that it still exists at Subscribe Pro
     */
    if (paymentProfileID) {

        let response = SubscribeProLib.getPaymentProfile(paymentProfileID);

        /**
         * Payment Profile not found, create new Payment Profile record
         * Otherwise create the payment profile
         */
        if (response.error && response.result.code === 404) {
            paymentProfileID = createSubproPaymentProfile(customerProfile,
customerPaymentInstrument, order.billingAddress);
            /**
             * Some other error occurred, error out
             */
        } else if (response.error) {
            logError(response, 'getPaymentProfile');
            continue;
        }
    } else {
        paymentProfileID = createSubproPaymentProfile(customerProfile,
customerPaymentInstrument, order.billingAddress);
    }
}
}

```

Recurring subscription charging

To charge a regular fee we should create OCAPI order using payment profile information saved earlier. Then using this data SubPro side will create order for paying for subscription via OCAPI.

1. Request POST /dw/shop/v17_3/baskets to create basket for order.
2. Use POST /dw/shop/v17_3/baskets/{basket_id}/payment_instruments to add payment instruments to basket. This requires fields payment_instrument_id and amount.
3. Request POST /dw/shop/v17_3/orders with basket_id attribute to create order.

3.3 Custom Code

Templates

- addressinclude.isml
- cart.isml
- checkoutlogin.isml
- displayliproduct.isml
- minilineitems.isml
- multishippingshipments.isml
- orderdetails.isml
- orderdetailsemail.isml
- paymentinstrumentlist.isml
- paymentmethods.isml
- productcontent.isml
- producttopcontentPS.isml
- productsetproduct.isml
- pt_productdetails_UI.isml
- pt_productsearchresult.isml
- summary.isml
- creditcardjson.isml

Controllers

- Account.js
- COBilling.js
- COCustomer.js
- COSummary.js
- Address.js
- PaymentInstruments.js

JS

- js/subscriptionOptions.js

Scripts

- CartModel.js
- cart.js
- variant.js
- GetProductDetailUrl.ds
- billing.js

Forms

- creditcard.xml

Resource

- Resource.ds
- account.properties

The code changes below detail the customizations that must be made to the SiteGenesis core and controllers cartridges to implement Subscribe Pro.

subscriptionOptions.js Script

The cartridge/js/subscriptionOptions.js file in the int_subscribe_pro cartridge should be copied into the app_storefront_core/cartridge/js directory.

Resource

Modify account.properties

Locate properties file `/app_storefront_core/cartridge/templates/resource/account.properties`.

Add the following line:

```
account.subpro.mysubscriptions=My subscriptions
```

PDP

Changes need to be done to display product subscription options (is they are available) and Subscribe Pro “Add to Order” widget.

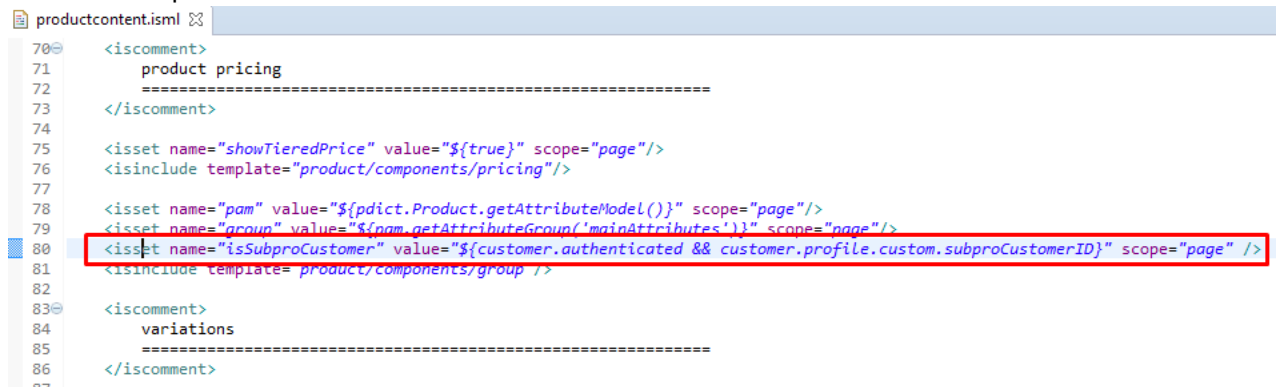
Modify productcontent.isml

Find template `/app_storefront_core/cartridge/templates/default/product/productcontent.isml`.

- 1) Set the variable specifying if current customer is a Subscribe Pro customer:

```
<isset name="isSubproCustomer" value="{customer.authenticated && customer.profile.custom.subproCustomerID}" scope="page" />
```

Here is the expected result:



```
productcontent.isml
70 <iscomment>
71   product pricing
72   =====
73 </iscomment>
74
75 <isset name="showTieredPrice" value="{true}" scope="page"/>
76 <isinclude template="product/components/pricing"/>
77
78 <isset name="pam" value="{pdct.Product.getAttributeModel()}" scope="page"/>
79 <isset name="group" value="{pam.getAttributeGroup('mainAttributes')}" scope="page"/>
80 <isset name="isSubproCustomer" value="{customer.authenticated && customer.profile.custom.subproCustomerID}" scope="page" />
81 <isinclude template="product/components/group"/>
82
83 <iscomment>
84   variations
85   =====
86 </iscomment>
87
```

- 2) Scroll down to add to cart form, find “*product quantity*” section and paste code below before it to render product subscription options:

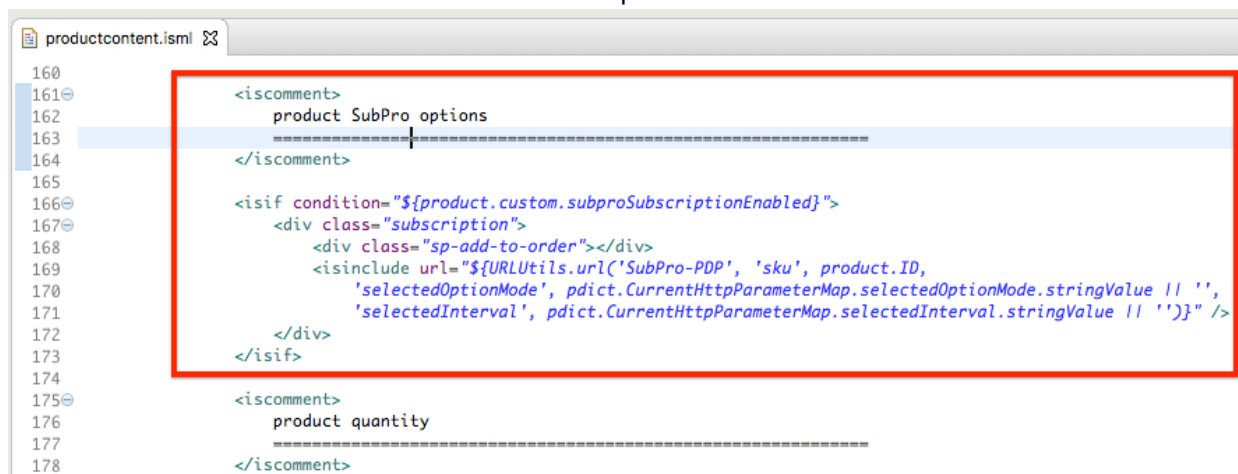
```

<iscomment>
    product SubPro options
    =====
</iscomment>

<isif condition="${product.custom.subproSubscriptionEnabled}">
    <div class="subscription">
        <div class="sp-add-to-order"></div>
        <isinclude url="${URLUtils.url('SubPro-PDP', 'sku', product.ID,
            'selectedOptionMode', pdict.CurrentHttpParameterMap.selectedOptionMode.stringValue
|| '',
            'selectedInterval', pdict.CurrentHttpParameterMap.selectedInterval.stringValue ||
''})" />
        </div>
    </isif>

```

Here is the expected result:



- 3) Scroll down to “add-to-cart” button and insert code below after it to render Subscribe Pro “Add to Order” widget:

```

<isif condition="${isSubproCustomer}">
    <!-- Subscribe Pro Add to Order Widget -->
    <div class="sp-add-to-order" data-product-sku="${pid}"></div>
    <div id="sp-add-to-order-widget"></div>
</isif>

```

Here is the expected result:

```

productcontent.isml
232     };
233 </iscript>
234 <input type="hidden" name="pid" id="pid" value="${pid}" />
235 <isif condition="${!disabledAttr}">
236     <button id="add-to-cart" type="submit" title="${buttonTitle}" value="${buttonTitle}" class="button-fancy-large
237
238     <isif condition="${isSubproCustomer}">
239         <!-- Subscribe Pro Add to Order Widget -->
240         <div class="sp-add-to-order" data-product-sku="${pid}"></div>
241         <div id="sp-add-to-order-widget"></div>
242     </isif>
243
244     <isapplepay sku="${pdict.Product.ID}"></isapplepay>
245 </iselse>
246 <iscript>
247     var pvm = pdict.Product.getVariationModel();
248     var it = pvm.getProductVariationAttributes().iterator();
249     var array = [];
250     var options = '';

```

4) Add code to configure Subscribe Pro “Add to Order” widget:

```

<isif condition="${isSubproCustomer}">
    <iscomment>
        Configure the Subscribe Pro Add to Order Widget
    </iscomment>

    <!-- Load the Subscribe Pro widget script -->

    <isset name="widgetConfig" scope="page"

value="${require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/WidgetsHelper').getWidgetConfig(customer.profile.custom.subproCustomerID, 'client_credentials', 'widget', 'sp-add-to-order-widget', 'sp-add-to-order')}" />

    <!-- Pass configuration and init the Subscribe Pro widget -->
    <script>
        // Setup config for Subscribe Pro
        var widgetConfig = {
            widgetElementId: '${widgetConfig.widgetElementId}',
            apiBaseUrl: '${widgetConfig.apiAccessToken}',
            apiAccessToken: '${widgetConfig.apiAccessToken}',
            environmentKey: '${widgetConfig.environmentKey}',
            customerId: '${widgetConfig.customerId}',
            addToOrderElementClass: '${widgetConfig.addToOrderElementClass}'
        };
        // Call init
        if (typeof subscribepro !== 'undefined') {
            subscribepro.widgets.init('add-to-order', widgetConfig);
        } else {
            $.getScript(
                '${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproWidgetScriptUrl')}'
            , function( data, textStatus, jqxhr ) {
                subscribepro.widgets.init('add-to-order', widgetConfig);
            });
        }
    </script>
</isif>

```

Here is the expected result:

```

productcontent.isml
299 <div id="update-images" style="display:none">
300 <isinclude template="product/components/productimages"/>
301 </div>
302 </isif>
303
304 <isif condition="{isSubproCustomer}">
305 <iscomment>
306 Configure the Subscribe Pro Add to Order Widget
307 </iscomment>
308
309 <!-- Load the Subscribe Pro widget script -->
310
311 <isset name="widgetConfig" scope="page"
312 value="{require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/WidgetsHelper').getWidgetConfig(custo
313
314 <!-- Pass configuration and init the Subscribe Pro widget -->
315 <script>
316 // Setup config for Subscribe Pro
317 var widgetConfig = {
318 widgetElementId: '{widgetConfig.widgetElementId}',
319 apiBaseUrl: '{widgetConfig.apiAccessToken}',
320 apiAccessToken: '{widgetConfig.apiAccessToken}',
321 environmentKey: '{widgetConfig.environmentKey}',
322 customerId: '{widgetConfig.customerId}',
323 addToOrderElementClass: '{widgetConfig.addToOrderElementClass}'
324 };
325 // Call init
326 if (typeof subscribepro !== 'undefined') {
327 subscribepro.widgets.init('add-to-order', widgetConfig);
328 } else {
329 $.getScript( '{require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproWidgetScriptUrl'
330 subscribepro.widgets.init('add-to-order', widgetConfig);
331 });
332 }
333 </script>
334 </isif>
335 </isif>
336

```

Modify productsetproduct.isml

Locate template

/app_storefront_core/cartridge/templates/default/product/components/productsetproduct.isml. Find input

<input type="hidden" name="pid" value="{pdict.Product.ID}" />

Insert code below after it to render product subscription options.

```

<iscomment>
  product SubPro options
  =====
</iscomment>

<isif condition="{pdict.Product.custom.subproSubscriptionEnabled}">
  <div class="subscription">
    <div class="sp-add-to-order"></div>
    <isinclude url="{URLUtils.url('SubPro-PDP', 'sku', pdict.Product.ID)}" />
  </div>
</isif>

```

Here is the expected result:

```

productsetproduct.isml
67<=      <isif condition="${!pdict.Product.variationGroup}">
68          <div class="availability-web">
69              <label>${Resource.msg('global.availability','locale',null)}</label>
70              <span class="value"><isinclude template="product/components/availability"/></span>
71          </div>
72      </isif>
73
74
75<=      <form action="${URLUtils.url('Cart-AddProduct')}" method="post" id="${uniqueFormID}">
76          <input type="hidden" name="availability" value="${pdict.Product.availabilityModel.availabilityStatus}"/>
77          <input type="hidden" name="pid" value="${pdict.Product.ID}" />
78
79          <iscomment>
80              product SubPro options
81              =====
82          </iscomment>
83
84          <isif condition="${pdict.Product.custom.subproSubscriptionEnabled}">
85              <div class="subscription">
86                  <div class="sp-add-to-order"></div>
87                  <isinclude url="${URLUtils.url('SubPro-PDP', 'sku', pdict.Product.ID)}" />
88              </div>
89          </isif>
90
91          <div class="inventory">
92              <div class="quantity">
93                  <label for="${uniqueFormID}-quantity">${Resource.msg('global.qty','locale',null)}</label>
94                  <input type="text" name="Quantity" id="${uniqueFormID}-quantity" maxlength="3" class="input-tex">
95              </div>
96          </div>
97          <isset name="disabledText" value="${pdict.available ? '' : ' disabled="disabled"'" scope="page"/>
98          <button type="submit" value="${Resource.msg('global.addtocart','locale',null)}" class="button-fancy-med">
99              ${Resource.msg('global.addtocart','locale',null)}
100          </button>
101      </form>
102  </div>
103 </isif>
104

```

Modify producttopcontentPS.isml

Locate /app_storefront_core/cartridge/templates/default/product/producttopcontentPS.isml template.
Insert code below as shown on the screenshot.

```

<iscomment>
    product SubPro options
    =====
</iscomment>

<isif condition="${pdict.Product.custom.subproSubscriptionEnabled}">
    <h1>SUBPRO</h1>
    <div class="subscription">
        <div class="sp-add-to-order"></div>
        <isinclude url="${URLUtils.url('SubPro-PDP', 'sku', pdict.Product.ID)}" />
    </div>
</isif>

```

Here is the expected result:


```

168 <button id="add-all-to-cart" type="submit" value="${Resource.msg('global.addalltocart','locale',null)}" c:
169     ${Resource.msg('global.addalltocart','locale',null)}
170 </button>
171 <elseif/>
172 <iscript>
173     var updateSources = ["cart", "giftregistry", "wishlist"];
174     var source = pdict.CurrentHttpParameterMap.source.stringValue;
175     var buttonTitle = (empty(source) || updateSources.indexOf(source)<0) ? dw.web.Resource.msg('global.ac
176 </iscript>
177
178 <iscomment>
179     product SubPro options
180     =====
181 </iscomment>
182
183 <isif condition="${pdict.Product.custom.subproSubscriptionEnabled}">
184     <h1>SUBPRO</h1>
185     <div class="subscription">
186         <div class="sp-add-to-order"></div>
187         <isinclude url="${URLUtils.url('SubPro-PDP', 'sku', pdict.Product.ID)}" />
188     </div>
189 </isif>
190
191 <isset name="cartAction" value="add" scope="page"/>
192 <isif condition="${pdict.CurrentHttpParameterMap.uuid.stringValue}">
193     <input type="hidden" name="uuid" id="uuid" value="${pdict.CurrentHttpParameterMap.uuid.stringValue}" ,
194     <isset name="cartAction" value="update" scope="page"/>
195 </isif>
196 <input type="hidden" name="cartAction" id="cartAction" value="${cartAction}" />
197 <input type="hidden" name="pid" id="pid" value="${pdict.Product.ID}" />
198 <button id="add-to-cart" type="submit" title="${buttonTitle}" value="${buttonTitle}" class="button-fancy-i
199 </isif>
200
201 </div><!-- END .addalltocart -->
202 </form>
203

```

Modify pt_productdetails_UL.isml

Locate /app_storefront_core/cartridge/templates/default/product/pt_productdetails_UL.isml template. Add line below to load styles.

```
<link rel="stylesheet" href="${URLUtils.staticURL('/css/subscribepro.css')}" />
```

Here is the expected result:

```

1 <iscontent type="text/html" charset="UTF-8" compact="true"/>
2 <link rel="stylesheet" href="${URLUtils.staticURL('/css/subscribepro.css')}" />

```

Modify variant.js script

Locate /app_storefront_core/cartridge/js/pages/product/variant.js script. Add logic to handle displaying of subscription options. Include script from the int_subscribe_pro cartridge (Note: path in the require() should point to the file you copied into the app_storefront_core js directory, see above at the start of the code changes section):

```
var subscriptionOptions = require('../subscriptionOptions');
```

and call function variantInit() in two locations as pictured below:

```
subscriptionOptions.variantInit();
```

Here is the expected result:

```
variant.js
3 var ajax = require('../ajax'),
4   image = require('../image'),
5   progress = require('../progress'),
6   productStoreInventory = require('../storeinventory/product'),
7   tooltip = require('../tooltip'),
8   util = require('../util'),
9   subscriptionOptions = require('../LINK-subscribe-pro/int_subscribe_pro/cartridge/js/subscriptionOptions');
10
11 * @description update product content with new variant from href, load new content to #product-content panel
12 * @param {String} href - url of the new product variant
13 **/
14 var updateContent = function (href) {
15   var $pdpForm = $('#pdpForm');
16   var qty = $pdpForm.find('input[name="Quantity"]').first().val();
17   var params = {};
18   progress.show($('#pdpMain'));
19   ajax.load({
20     url: util.appendParamsToUrl(href, params),
21     target: $('#product-content'),
22     callback: function () {
23       if (SitePreferences.STORE_PICKUP) {
24         productStoreInventory.init();
25       }
26       image.replaceImages();
27       tooltip.init();
28       subscriptionOptions.variantInit();
29     }
30   });
31 };
32
33 module.exports = function () {
34   var $pdpMain = $('#pdpMain');
35   // hover on swatch - should update main image with swatch image
36   $pdpMain.on('mouseenter mouseleave', '.swatchanchor', function () {
37     var largeImg = $(this).data('lgimg'),
38         $imgZoom = $pdpMain.find('.main-image'),
39         $mainImage = $pdpMain.find('.primary-image');
40     if (!largeImg) { return; }
41     // store the old data from main image for mouseleave handler
42     $(this).data('lgimg', {
43       hires: $imgZoom.attr('href'),
44       url: $mainImage.attr('src'),
45       alt: $mainImage.attr('alt'),
46       title: $mainImage.attr('title')
47     });
48     // set the main image
49     image.setMainImage(largeImg);
50   });
51   // click on swatch - should replace product content with new variant
52   $pdpMain.on('click', '.product-detail .swatchanchor', function (e) {
53     e.preventDefault();
54     if ($(this).parents('li').hasClass('unselectable')) { return; }
55     updateContent(this.href);
56   });
57   // change drop down variation attribute - should replace product content with new variant
58   $pdpMain.on('change', '.variation-select', function () {
59     if ($(this).val().length === 0) { return; }
60     updateContent($(this).val());
61   });
62   subscriptionOptions.variantInit();
63 }
```

Modify GetProductDetailUrl.ds

Locate `/app_storefront_core/cartridge/scripts/product/GetProductDetailUrl.ds` script. Find `GetProductDetailUrl` function and add code below to append selected subscription option mode and interval to URL.

```

if (pdict.CurrentHttpParameterMap.selectedOptionMode.stringValue) {
    urlParams['selectedOptionMode'] =
pdict.CurrentHttpParameterMap.selectedOptionMode.stringValue;
}

if (pdict.CurrentHttpParameterMap.selectedInterval.stringValue) {
    urlParams['selectedInterval'] =
pdict.CurrentHttpParameterMap.selectedInterval.stringValue;
}

```

Here is the expected result:

```

GetProductDetailUrl.ds
120 /**
121  * Create Product-Detail url for use in product/product.isml template
122  *
123  * @param pdict PipelineDictionary
124  *
125  */
126 function GetProductDetailUrl(pdict) {
127     var urlArgs = ['Product-Detail'];
128     var urlParams = {
129         pid: pdict.Product.ID,
130         source: pdict.CurrentHttpParameterMap.source.stringValue,
131         uuid: pdict.CurrentHttpParameterMap.uuid.stringValue,
132         Quantity: pdict.CurrentHttpParameterMap.Quantity.stringValue,
133         productlistid: pdict.CurrentHttpParameterMap.productlistid.stringValue
134     };
135
136     if (pdict.CurrentHttpParameterMap.selectedOptionMode.stringValue) {
137         urlParams['selectedOptionMode'] = pdict.CurrentHttpParameterMap.selectedOptionMode.stringValue;
138     }
139
140     if (pdict.CurrentHttpParameterMap.selectedInterval.stringValue) {
141         urlParams['selectedInterval'] = pdict.CurrentHttpParameterMap.selectedInterval.stringValue;
142     }
143
144     var variationAttributes = GetVariationAttributes(pdict);
145     var productOptions = GetProductOptions(pdict.CurrentOptionModel);
146
147     // construct the urlArgs array with params names and values
148     for (var param in urlParams) {
149         urlArgs.push(param);
150         urlArgs.push(urlParams[param]);
151     }
152     for (var attr in variationAttributes) {

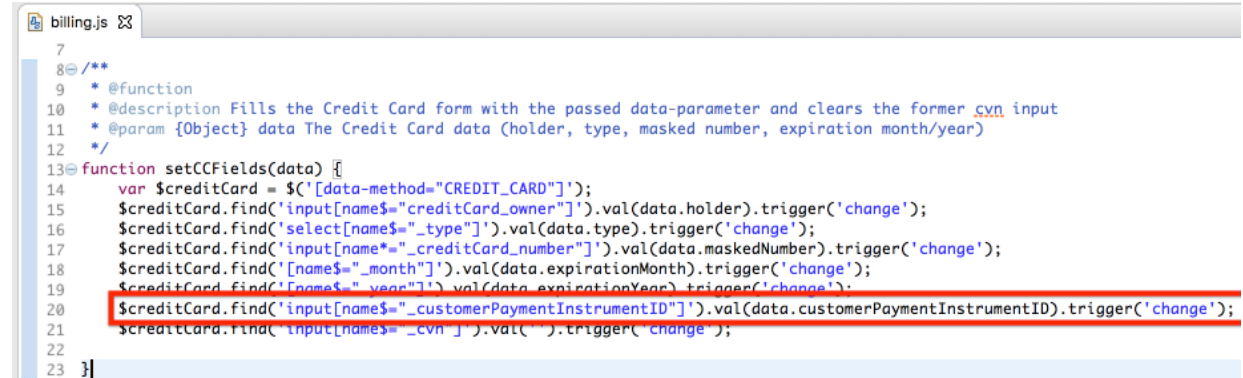
```

Modify billing.js

Locate `/app_storefront_core/cartridge/js/pages/checkout/billing.js` script. Find `setCCFields` function and add code below to update the customer payment instrument input field with the selected UUID.

```
$creditCard.find('input[name$="_customerPaymentInstrumentID"]').val(data.customerPaymentInstrumentID).trigger('change');
```

Here is the expected result:



```
7
8 /**
9  * @function
10  * @description Fills the Credit Card form with the passed data-parameter and clears the former cvn input
11  * @param {Object} data The Credit Card data (holder, type, masked number, expiration month/year)
12  */
13 function setCCFields(data) {
14     var $creditCard = $('[data-method="CREDIT_CARD"]');
15     $creditCard.find('input[name$="creditCard_owner"]').val(data.holder).trigger('change');
16     $creditCard.find('select[name$="_type"]').val(data.type).trigger('change');
17     $creditCard.find('input[name$="_creditCard_number"]').val(data.maskedNumber).trigger('change');
18     $creditCard.find('input[name$="_month"]').val(data.expirationMonth).trigger('change');
19     $creditCard.find('input[name$="_year"]').val(data.expirationYear).trigger('change');
20     $creditCard.find('input[name$="_customerPaymentInstrumentID"]').val(data.customerPaymentInstrumentID).trigger('change');
21     $creditCard.find('input[name$="_cvn"]').val('').trigger('change');
22 }
23 }
```

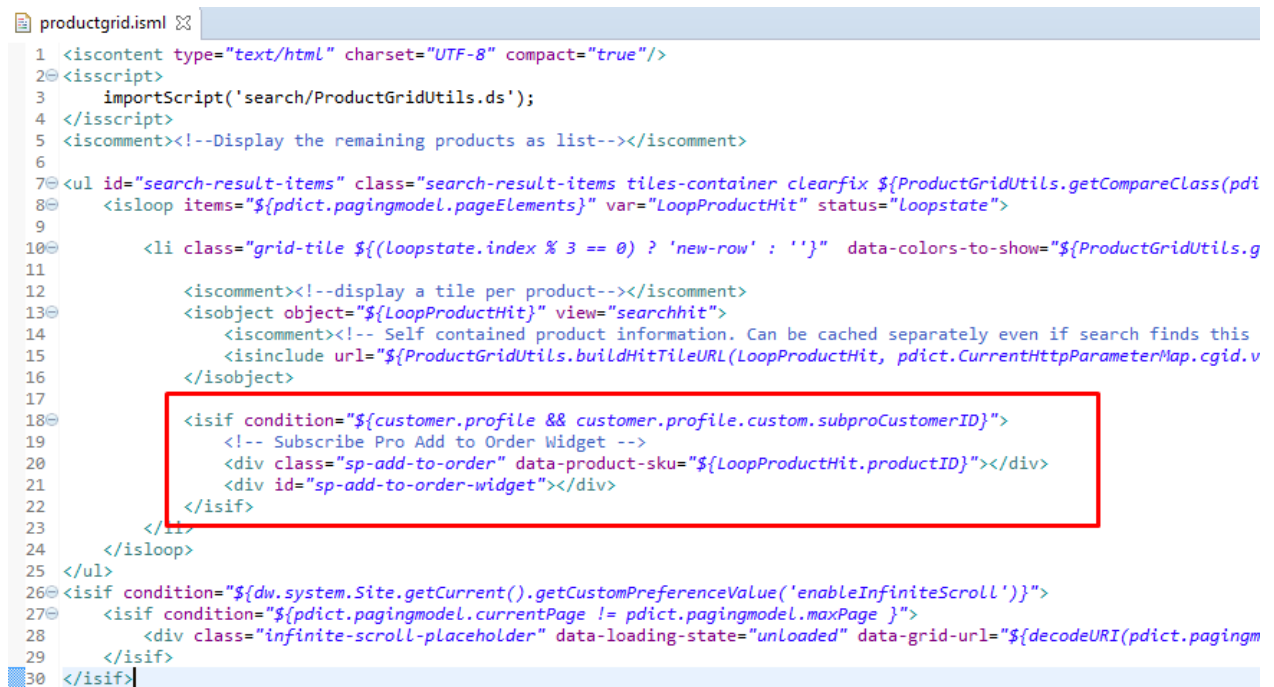
Changes need to be done to display Subscribe Pro “Add to Order” widget.

Modify *productgrid.isml*

Find template `/app_storefront_core/cartridge/templates/default/search/productgrid.isml`. Insert code below to add tag which the Subscribe Pro “Add to Order” widget will be rendered to.

```
<isif condition="${customer.profile && customer.profile.custom.subproCustomerID}">
  <!-- Subscribe Pro Add to Order Widget -->
  <div class="sp-add-to-order" data-product-sku="${LoopProductHit.productID}"></div>
  <div id="sp-add-to-order-widget"></div>
</isif>
```

Here is the expected result:



```
productgrid.isml
1 <iscontent type="text/html" charset="UTF-8" compact="true"/>
2 <iscript>
3   importScript('search/ProductGridUtils.ds');
4 </iscript>
5 <iscomment><!--Display the remaining products as list--></iscomment>
6
7 <ul id="search-result-items" class="search-result-items tiles-container clearfix ${ProductGridUtils.getCompareClass(pd
8   <isloop items="${pdict.pagingmodel.pageElements}" var="LoopProductHit" status="Loopstate">
9
10    <li class="grid-tile ${Loopstate.index % 3 == 0} ? 'new-row' : ''" data-colors-to-show="${ProductGridUtils.g
11
12      <iscomment><!--display a tile per product--></iscomment>
13      <isobject object="${LoopProductHit}" view="searchhit">
14        <iscomment><!-- Self contained product information. Can be cached separately even if search finds this
15        <isinclude url="${ProductGridUtils.buildHitTileURL(LoopProductHit, pdict.CurrentHttpParameterMap.cgiid.v
16      </isobject>
17
18      <isif condition="${customer.profile && customer.profile.custom.subproCustomerID}">
19        <!-- Subscribe Pro Add to Order Widget -->
20        <div class="sp-add-to-order" data-product-sku="${LoopProductHit.productID}"></div>
21        <div id="sp-add-to-order-widget"></div>
22      </isif>
23    </li>
24  </isloop>
25 </ul>
26 <isif condition="${dw.system.Site.getCurrent().getCustomPreferenceValue('enableInfiniteScroll')}">
27   <isif condition="${pdict.pagingmodel.currentPage != pdict.pagingmodel.maxPage }">
28     <div class="infinite-scroll-placeholder" data-loading-state="unloaded" data-grid-url="${decodeURI(pdict.pagingm
29   </isif>
30 </isif>
```

Modify *pt_productsearchresult.isml*

Find template `/app_storefront_core/cartridge/templates/default/search/pt_productsearchresult.isml`. Add code below at the end of body to render the Subscribe Pro “Add to Order” widget.

```
<isif condition="${customer.authenticated && customer.profile.custom.subproCustomerID}">
  <iscomment>
    Configure the Subscribe Pro Add to Order Widget
  </iscomment>

  <!-- Load the Subscribe Pro widget script -->
```

```

        <script
src="${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproWidgetScriptUr
l')}"></script>

        <isset name="widgetConfig" scope="page"

value="${require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/WidgetsHelper').getWid
getConfig(customer.profile.custom.subproCustomerID, 'client_credentials', 'widget', 'sp-add-
to-order-widget', 'sp-add-to-order')}"/>

        <!-- Pass configuration and init the Subscribe Pro widget -->
        <script>
            // Setup config for Subscribe Pro
            var widgetConfig = <isprint value="${JSON.stringify(widgetConfig)}"
encoding="off" />;
            subscribepro.widgets.init('add-to-order', widgetConfig);
        </script>
    </isif>

```

Basket (cart)

Changes need to be done to display subscription options for products in cart.

Modify cart.isml

Find template `/app_storefront_core/cartridge/templates/default/checkout/cart/cart.isml`. Add code below to include template with subscription options if product line item has SubPro subscriptions.

```

<isdisplayliproduct p_productli="${lineItem}" p_formli="${FormLi}" p_editable="${true}"
p_hideprice="${true}" p_hidepromo="${false}" />
<isif condition="${lineItem.custom.subproSubscriptionOptionMode}">
    <div class="subscription">
        <isinclude url="${URLUtils.url('SubPro-Cart', 'pliUUID',
productLineItem.getUUID())}" />
    </div>
</isif>

```

Insert it after each `<isdisplayliproduct/>` tag (there should be two such places).

Here is the expected result:

```

169         
171     </td>
172 </td>
173 <td class="item-details">
174
175     <comment>Call module to render product</comment>
176     <isdisplayproduct p_productli="${lineItem}" p_formli="${Formli}" p_editable="${true}" p_hideprice="${true}" p_
177     <isif condition="${lineItem.custom.subproSubscriptionOptionMode}">
178         <div class="subscription">
179             <include url="${URLUtils.url('SubPro-Cart', 'pliUUID', productLineItem.getUUID())}" />
180         </div>
181     </isif>
182 </td>
183 <isif condition="${dw.system.Site.getCurrent().getCustomPreferenceValue('enableStorePickUp')}">
184 <td class="item-delivery-options">
185     <include template="checkout/cart/storepickup/deliveryoptions" />
186 </td>
187 </isif>

```

```

634         
636 </td>
637 </td>
638 <td class="item-details">
639
640     <comment>Call module to render product</comment>
641     <isdisplayproduct p_productli="${lineItem}" p_formli="${Formli}" p_editable="${false}" p_hideprice="${true}"
642     <isif condition="${lineItem.custom.subproSubscriptionOptionMode}">
643         <div class="subscription">
644             <include url="${URLUtils.url('SubPro-Cart', 'pliUUID', productLineItem.getUUID())}" />
645         </div>
646     </isif>
647     <div class="bonusproducts">
648         <a href="${URLUtils.url('Product-GetBonusProducts', 'bonusDiscountLineItemUUID', bonusDiscountLineItem.UUID,
649             ${bonusButtonText})}">
650         </a>
651     </div>
652 </td>
653 <isif condition="${dw.system.Site.getCurrent().getCustomPreferenceValue('enableStorePickUp')}">
654 <td class="item-delivery-options">
655     <include template="checkout/cart/storepickup/deliveryoptions" />
656 </td>

```

Modify displayliproduct.isml

Locate `/app_storefront_core/cartridge/templates/default/product/components/displayliproduct.isml` template. Find `<isscript>` where URL is built. Add following lines to `urlParams` object to save subscription selected option mode and interval.

```

selectedOptionMode: productLineItem.custom.subproSubscriptionSelectedOptionMode,
selectedInterval: productLineItem.custom.subproSubscriptionInterval

```

Here is the expected result:

```

displayliproduct.isml
118 <iscomment>
119     Show Edit Details link if
120     Product is not null and it is either a variant and online or options product and online
121 </iscomment>
122 <isif condition="$ {!productLineItem.bonusProductLineItem && productLineItem.product != null && (pdict.p_editable && ,
123 <div class="item-edit-details">
124 <isif condition="$ {empty(pdict.p_editable) || pdict.p_editable}">
125 <isscript>
126     var liUrl = '';
127     var urlArgs = ['Product-Show'];
128     var urlParams = {
129         pid: productLineItem.productID,
130         Quantity: productLineItem.quantity.value.toFixed(),
131         uuid: productLineItem.UUID,
132         source: 'cart',
133         selectedOptionMode: productLineItem.custom.subproSubscriptionSelectedOptionMode,
134         selectedInterval: productLineItem.custom.subproSubscriptionInterval
135     };
136
137     // if item has a category context, forward this category context
138     if (productLineItem.categoryID != null) {
139         urlParams.cgid = productLineItem.categoryID;
140     }
141
142     if (productLineItem.optionProductLineItems.size() > 0) {
143         var pom : dw.catalog.ProductOptionModel = productLineItem.optionModel;
144         var it : dw.util.Iterator = productLineItem.optionProductLineItems.iterator();
145
146         while (it.hasNext()) {
147             var oli : dw.order.ProductLineItem = it.next();
148             var opt : dw.catalog.ProductOption = pom.getOption(oli.optionID);
149             urlParams[opt.htmlName] = pom.getOptionValue(opt, oli.optionValueID).ID;
150         }
151     }

```

Modify Resource.ds

Find `/app_storefront_core/cartridge/scripts/util/Resource.ds`. Find method `getUrls()`, variable `urls` and insert code below to add url to SubPro-UpdateOptions controller node which will update Subscription Options on Product Line Item in cart.

```
subproSubscriptionOptions : URLUtils.url('SubPro-UpdateOptions').toString()
```

Here is the expected result:


```

135 resources["REMAIN_" + ProductAvailabilityModel.AVAILABILITY_STATUS_BACKORDER] = Resource.msg('global.remainingbackorder', 'lo
136 resources[ProductAvailabilityModel.AVAILABILITY_STATUS_NOT_AVAILABLE] = Resource.msg('global.allnotavailable', 'locale', null)
137 resources["REMAIN_" + ProductAvailabilityModel.AVAILABILITY_STATUS_NOT_AVAILABLE] = Resource.msg('global.remainingnotavailabl
138
139 return resources;
140 }
141
142 /**
143  * Get the client-side URLs of a given page
144  * @returns {Object} An objects key key-value pairs holding the URLs
145  */
146 ResourceHelper.getUrls = function(pageContext) {
147     var URLUtils = require('dw/web/URLUtils');
148     var Resource = require('dw/web/Resource');
149
150     // application urls
151     var urls = {
152         subproSubscriptionOptions : URLUtils.url('SubPro-UpdateOptions').toString(),
153         appResources : URLUtils.url('Resources-Load').toString(),
154         pageInclude : URLUtils.url('Page-Include').toString(),
155         continueUrl : request.isHttpSecure() ? URLUtils.httpsContinue().toString() : URLUtils.httpContinue().toStr
156         staticPath : URLUtils.staticURL("/").toString(),
157         addGiftCert : URLUtils.url('GiftCert-Purchase').toString(),
158         minicartGC : URLUtils.url('GiftCert-ShowMiniCart').toString(),
159         addProduct : URLUtils.url('Cart-AddProduct').toString(),
160         minicart : URLUtils.url('Cart-MiniAddProduct').toString(),
161         cartShow : URLUtils.url('Cart-Show').toString(),
162         giftRegAdd : URLUtils.https('Address-GetAddressDetails', 'addressID', '').toString(),

```

Modify cart.js

Find script `/app_storefront_core/cartridge/js/pages/cart.js`. Add logic to handle displaying and modifying of the subscription options. Include `js/subscriptionOptions.js` file from the `int_subscribe_pro` cartridge (Note: path in the `require()` should point to the file you copied into the `app_storefront_core js` directory, see above at the start of the code changes section):

```
var subscriptionOptions = require('../subscriptionOptions');
```

and at the end of `initializeEvents()` function call function `cartInit()`:

```
subscriptionOptions.cartInit();
```

Here is the expected result:

```

1 'use strict';
2
3 var account = require('./account'),
4     bonusProductsView = require('../bonus-products-view'),
5     quickview = require('../quickview'),
6     cartStoreInventory = require('../storeinventory/cart'),
7     subscriptionOptions = require('../../../../LINK-subscribe-pro/int_subscribe_pro/cartridge/js/subscriptionOptions');
8
9 /**
10  * @private
11  * @function
12  * @description Binds events to the cart page (edit item's details, bonus item's actions, coupon code entry)
13  */
14 function initializeEvents() {
15     $('#cart-table').on('click', '.item-edit-details a', function (e) {
16         e.preventDefault();
17         quickview.show({
18             url: e.target.href,
19             source: 'cart'
20         });
21     })
22     .on('click', '.bonus-item-actions a, .item-details .bonusproducts a', function (e) {
23         e.preventDefault();
24         bonusProductsView.show(this.href);
25     });
26
27     // override enter key for coupon code entry
28     $('form input[name$="_couponCode"]').on('keydown', function (e) {
29         if (e.which === 13 && $(this).val().length === 0) {
30             return false;
31         }
32     });
33
34     //to prevent multiple submissions of the form when removing a product from the cart
35     var removeItemEvent = false;
36     $('button[name$="deleteProduct"]').on('click', function (e) {
37         if (removeItemEvent) {
38             e.preventDefault();
39         } else {
40             removeItemEvent = true;
41         }
42     });
43
44     subscriptionOptions.cartInit();
45 }
46
47 exports.init = function () {

```

Modify CartModel.js

Find script model `/app_storefront_controllers/cartridge/scripts/models/CartModel.js`.

Add logic to get product subscription options from template and then save them to Product Line Item custom attributes. Data that will be stored in Product Line Item:

- subproSubscriptionAvailableOptionMode
- subproSubscriptionOptionMode
- subproSubscriptionInterval
- subproSubscriptionAvailableIntervals
- subproSubscriptionDiscount
- subproSubscriptionIsDiscountPercentage
- subproContainsSubscriptions
- subproSubscriptionsToBeProcessed

1) Find method `addProductToCart`. Find line:

```
cart.updateLineItem(lineItem, productToAdd, quantity, productOptionModel);
```

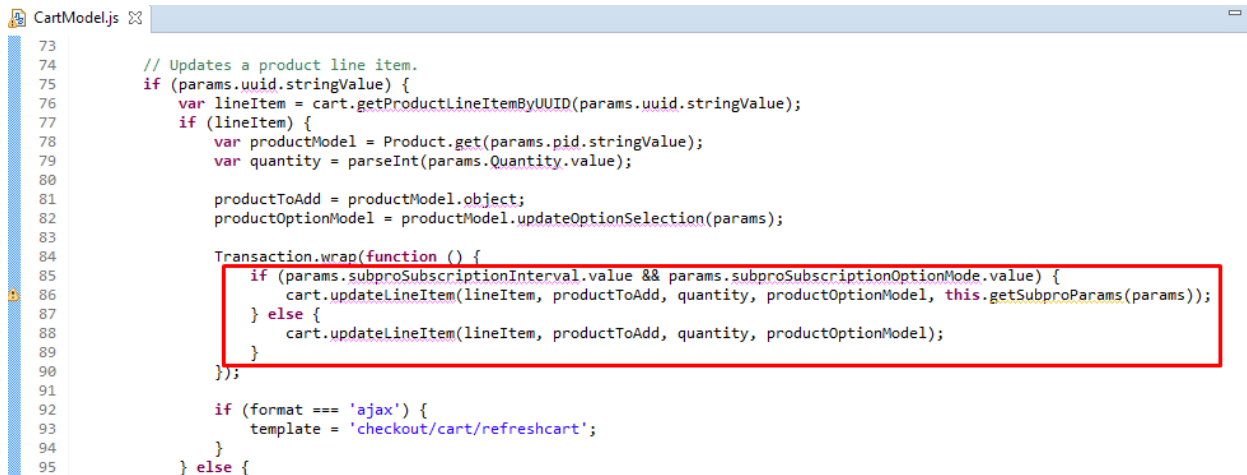
and replace with the code below:

```

if (params.subproSubscriptionInterval.value && params.subproSubscriptionOptionMode.value) {
    cart.updateLineItem(lineItem, productToAdd, quantity, productOptionModel,
    cart.getSubproParams(params));
} else {
    cart.updateLineItem(lineItem, productToAdd, quantity, productOptionModel);
}

```

Here is the expected result:



```

73
74 // Updates a product line item.
75 if (params.uuid.stringValue) {
76     var lineItem = cart.getProductLineItemByUUID(params.uuid.stringValue);
77     if (lineItem) {
78         var productModel = Product.get(params.pid.stringValue);
79         var quantity = parseInt(params.Quantity.value);
80
81         productToAdd = productModel.object;
82         productOptionModel = productModel.updateOptionSelection(params);
83
84         Transaction.wrap(function () {
85             if (params.subproSubscriptionInterval.value && params.subproSubscriptionOptionMode.value) {
86                 cart.updateLineItem(lineItem, productToAdd, quantity, productOptionModel, this.getSubproParams(params));
87             } else {
88                 cart.updateLineItem(lineItem, productToAdd, quantity, productOptionModel);
89             }
90         });
91
92         if (format === 'ajax') {
93             template = 'checkout/cart/refreshcart';
94         }
95     } else {

```

2) Find method *addProductToCart*. Find line:

```
cart.addProductItem(productToAdd.object, params.Quantity.doubleValue, productOptionModel);
```

and replace with the code below:

```

if (params.subproSubscriptionInterval.value && params.subproSubscriptionOptionMode.value) {
    cart.addProductItem(productToAdd.object, params.Quantity.doubleValue, productOptionModel,
    cart.getSubproParams(params));
} else {
    cart.addProductItem(productToAdd.object, params.Quantity.doubleValue, productOptionModel);
}

```

Here is the expected result:

```

109     var previousBonusDiscountLineItems = cart.getBonusDiscountLineItems();
110     productToAdd = Product.get(params.pid.stringValue);
111
112     if (productToAdd.object.isProductSet()) {
113         var childPids = params.childPids.stringValue.split(',');
114         var childQtys = params.childQtys.stringValue.split(',');
115         var counter = 0;
116
117         for (var i = 0; i < childPids.length; i++) {
118             var childProduct = Product.get(childPids[i]);
119
120             if (childProduct.object && !childProduct.isProductSet()) {
121                 var childProductOptionModel = childProduct.updateOptionSelection(params);
122                 cart.addProductItem(childProduct.object, parseInt(childQtys[counter]), childProductOptionModel);
123             }
124             counter++;
125         }
126     } else {
127         productOptionModel = productToAdd.updateOptionSelection(params);
128
129         if (params.subproSubscriptionInterval.value && params.subproSubscriptionOptionMode.value) {
130             cart.addProductItem(productToAdd.object, params.Quantity.doubleValue, productOptionModel, this.getSubproParams(params));
131         } else {
132             cart.addProductItem(productToAdd.object, params.Quantity.doubleValue, productOptionModel);
133         }
134     }
135
136     // When adding a new product to the cart, check to see if it has triggered a new bonus discount line item.
137     newBonusDiscountLineItem = cart.getNewBonusDiscountLineItem(previousBonusDiscountLineItems);
138 }
139
140 return {
141     format: format,
142     template: template,
143     BonusDiscountLineItem: newBonusDiscountLineItem
144 };

```

3) Find method *addProductItem*. Add *subproParams* to function parameters.

Add *subproParams* parameter to method (see image below).

Find line:

```
var productLineItem = cart.createProductLineItem(product, productOptionModel, shipment);
```

Add code below after it to update Product Line Item with Subscribe Pro parameters:

```

if (subproParams) {
    cart.addSubproParamsToPLI(productLineItem, subproParams);
}

```

Here is the expected result:

```

181  * @param {du.catalog.ProductOptionModel} productOptionModel - The option model of the product that is to be added to the basket.
182  * @param {Object} [subproParams] - Object containing options for SubPro subscription
183  /
184  addProductItem: function (product, quantity, productOptionModel, subproParams) {
185      var cart = this;
186      Transaction.wrap(function () {
187          var i;
188          if (product) {
189              var productInCart;
190              var productListItems = cart.object.productLineItems;
191              var quantityInCart;
192              var quantityToSet;
193              var shipment = cart.object.defaultShipment;
194
195              for (var q = 0; q < cart.object.productLineItems.length; q++) {
196                  if (productListItems[q].productID === product.ID) {
197                      productInCart = productListItems[q];
198                      break;
199                  }
200              }
201
202              if (productInCart) {
203                  quantityInCart = productInCart.getQuantity();
204                  quantityToSet = quantity ? quantity + quantityInCart : quantityInCart + 1;
205                  productInCart.setQuantityValue(quantityToSet);
206              } else {
207                  var productLineItem = cart.createProductLineItem(product, productOptionModel, shipment);
208
209                  if (subproParams) {
210                      cart.addSubproParamsToPLI(productLineItem, subproParams);
211                  }
212
213                  if (quantity) {
214                      productLineItem.setQuantityValue(quantity);
215                  }
216              }
217          }

```

- 4) Find method *updateLineItem*. Add *subproParams* to function parameters.
 Add *subproParams* parameter to method (see image below).
 Add code below after it to update Product Line Item with Subscribe Pro parameters:

```

if (subproParams) {
    this.addSubproParamsToPLI(lineItem, subproParams);
}

```

Here is the expected result:

```

505 * pids of the bundled products that are variations and any options.
506 *
507 * @transactional
508 * @alias module:models/CartModel~CartModel/updateLineItem
509 * @param {dw.order.ProductLineItem} lineItem - The product line item to replace.
510 * @param {dw.catalog.Product} product - The new product.
511 * @param {Number} quantity - The quantity of the product line item after replacement.
512 * @param {dw.catalog.ProductOptionModel} productOptionModel - The option model of the product to add to the basket.
513 * @param {Object} [subproParams] - Object containing options for SubPro subscription
514 */
515 updateLineItem: function (lineItem, product, quantity, productOptionModel, subproParams) {
516     var optionValues = productOptionModel.getOptions();
517
518     lineItem.replaceProduct(product);
519     lineItem.setQuantityValue(quantity);
520
521     if (optionValues.length) {
522         lineItem.updateOptionValue(optionValues[0]);
523     }
524
525     if (subproParams) {
526         this.addSubproParamsToPLI(lineItem, subproParams);
527     }
528
529     if (product.isBundle()) {
530
531         if (request.httpParameterMap.childPids.stringValue) {
532             var childPids = request.httpParameterMap.childPids.stringValue.split(',');
533
534             for (var i = 0; i < childPids.length; i++) {
535                 var childProduct = Product.get(childPids[i]).object;
536
537                 if (childProduct) {
538                     // why is this needed ?
539                     childProduct.updateOptionSelection(request.httpParameterMap);
540

```

5) Find method *createOrder*.

Add code below to update basket with Subscribe Pro properties.

```

let isSubPro =
require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js').isSubPro();
if (isSubPro) {
    Transaction.wrap(function () {
        basket.custom.subproContainsSubscriptions = isSubPro;
        basket.custom.subproSubscriptionsToBeProcessed = true;
    });
}

```

Here is the expected result:

```

1420 * registry, the purchase history of the respective gift registry item is updated.
1421 *
1422 * @transactional
1423 * @alias module:models/CartModel~CartModel/createOrder
1424 * @returns {dw.order.Order} The created order in status CREATED or null if an error occurred.
1425 */
1426 createOrder: function () {
1427     var basket = this.object;
1428     var order;
1429     try {
1430         let isSubPro = require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js').isSubPro();
1431         if (isSubPro) {
1432             Transaction.wrap(function () {
1433                 basket.custom.subproContainsSubscriptions = isSubPro;
1434                 basket.custom.subproSubscriptionsToBeProcessed = true;
1435             });
1436         }
1437         order = Transaction.wrap(function () {
1438             return OrderMgr.createOrder(basket);
1439         });
1440     } catch (error) {
1441         return;
1442     }
1443     return order;
1444 },
1445 },
1446 },
1447

```

6) Finally, add methods to CartModel object:

```

/**
 * Get Subscribe Pro subscription parameters and return them as an object.
 *
 * @param {object} params
 * @returns {{subscriptionInterval, subscriptionOptionMode, subscriptionSelectedOptionMode,
subscriptionAvailableIntervals, subscriptionDiscount, subscriptionIsDiscountPercentage:
boolean}}
 */
getSubproParams: function (params) {
    return {
        "subscriptionInterval": params.subproSubscriptionInterval.value,
        "subscriptionOptionMode": params.subproSubscriptionAvailableOptionMode.value,
        "subscriptionSelectedOptionMode": params.subproSubscriptionOptionMode.value,
        "subscriptionAvailableIntervals":
params.subproSubscriptionAvailableIntervals.value,
        "subscriptionDiscount": params.subproSubscriptionDiscount.value,
        "subscriptionIsDiscountPercentage":
params.subproSubscriptionIsDiscountPercentage.booleanValue
    }
},

/**
 * Update Product Line Item with Subscribe Pro subscription parameters
 *
 * @param {dw.order.ProductLineItem} pli The product line item to update
 * @param {object} subproParams Object containing Subscribe Pro subscription parameters
which should be added to product line item
 */
addSubproParamsToPLI: function (pli, subproParams) {
    var discountValue = parseFloat(subproParams.subscriptionDiscount),
        discountToApply = subproParams.subscriptionIsDiscountPercentage
        ? new dw.campaign.PercentageDiscount(discountValue * 100)
        : new dw.campaign.AmountDiscount(discountValue);

    if (subproParams.subscriptionSelectedOptionMode === 'regular') {
        pli.createPriceAdjustment("SubscribeProDiscount", discountToApply);
    }
}

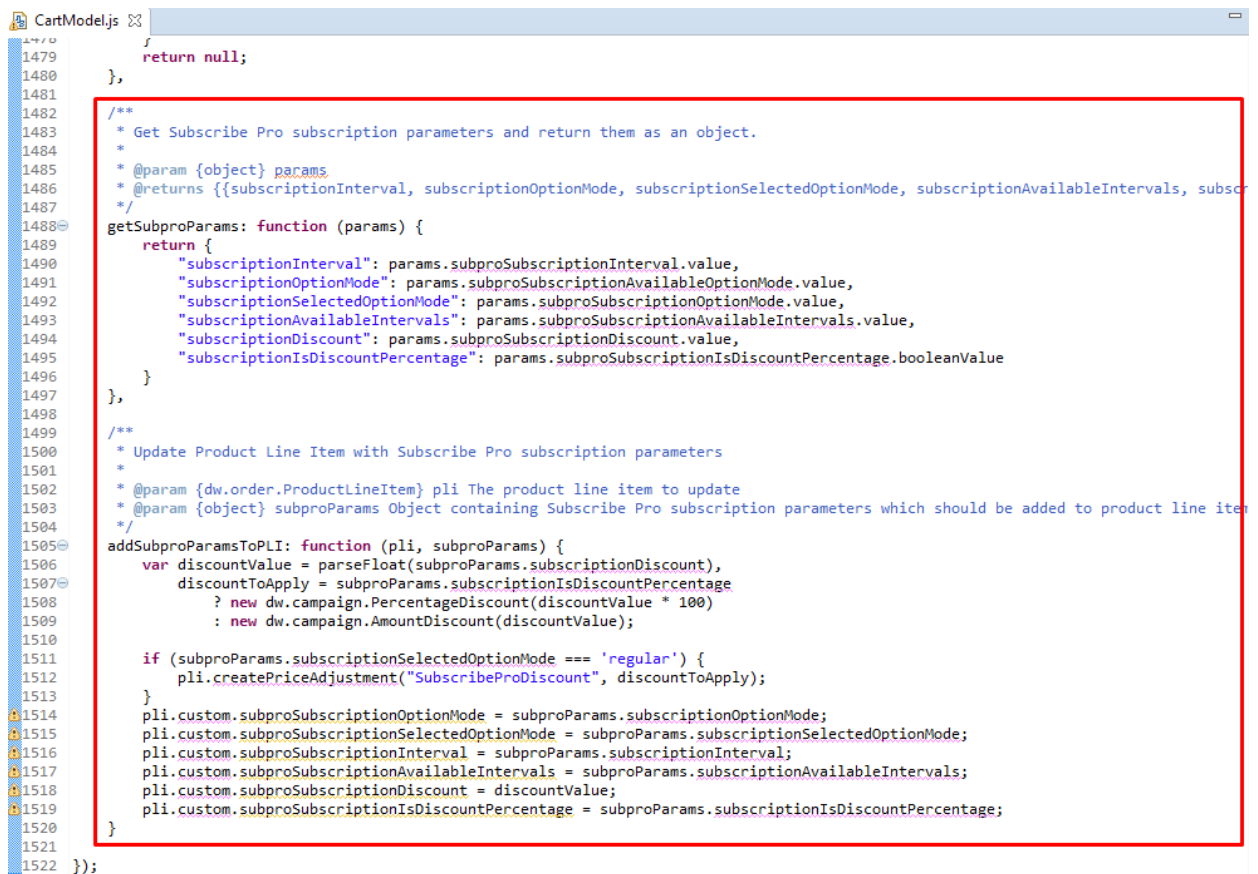
```

```

        pli.custom.subproSubscriptionOptionMode = subproParams.subscriptionOptionMode;
        pli.custom.subproSubscriptionSelectedOptionMode =
subproParams.subscriptionSelectedOptionMode;
        pli.custom.subproSubscriptionInterval = subproParams.subscriptionInterval;
        pli.custom.subproSubscriptionAvailableIntervals =
subproParams.subscriptionAvailableIntervals;
        pli.custom.subproSubscriptionDiscount = discountValue;
        pli.custom.subproSubscriptionIsDiscountPercentage =
subproParams.subscriptionIsDiscountPercentage;
    }

```

Here is the expected result:



```

1479         return null;
1480     },
1481
1482     /**
1483      * Get Subscribe Pro subscription parameters and return them as an object.
1484      * @param {object} params
1485      * @returns {{subscriptionInterval, subscriptionOptionMode, subscriptionSelectedOptionMode, subscriptionAvailableIntervals, subscriptionDiscount, subscriptionIsDiscountPercentage}}
1486      */
1487     getSubproParams: function (params) {
1488         return {
1489             "subscriptionInterval": params.subproSubscriptionInterval.value,
1490             "subscriptionOptionMode": params.subproSubscriptionAvailableOptionMode.value,
1491             "subscriptionSelectedOptionMode": params.subproSubscriptionOptionMode.value,
1492             "subscriptionAvailableIntervals": params.subproSubscriptionAvailableIntervals.value,
1493             "subscriptionDiscount": params.subproSubscriptionDiscount.value,
1494             "subscriptionIsDiscountPercentage": params.subproSubscriptionIsDiscountPercentage.booleanValue
1495         };
1496     },
1497
1498     /**
1499      * Update Product Line Item with Subscribe Pro subscription parameters
1500      * @param {dw.order.ProductLineItem} pli The product line item to update
1501      * @param {object} subproParams Object containing Subscribe Pro subscription parameters which should be added to product line item
1502      */
1503     addSubproParamsToPLI: function (pli, subproParams) {
1504         var discountValue = parseFloat(subproParams.subscriptionDiscount),
1505             discountToApply = subproParams.subscriptionIsDiscountPercentage
1506                 ? new dw.campaign.PercentageDiscount(discountValue * 100)
1507                 : new dw.campaign.AmountDiscount(discountValue);
1508
1509         if (subproParams.subscriptionSelectedOptionMode === 'regular') {
1510             pli.createPriceAdjustment("SubscribeProDiscount", discountToApply);
1511         }
1512         pli.custom.subproSubscriptionOptionMode = subproParams.subscriptionOptionMode;
1513         pli.custom.subproSubscriptionSelectedOptionMode = subproParams.subscriptionSelectedOptionMode;
1514         pli.custom.subproSubscriptionInterval = subproParams.subscriptionInterval;
1515         pli.custom.subproSubscriptionAvailableIntervals = subproParams.subscriptionAvailableIntervals;
1516         pli.custom.subproSubscriptionDiscount = discountValue;
1517         pli.custom.subproSubscriptionIsDiscountPercentage = subproParams.subscriptionIsDiscountPercentage;
1518     }
1519
1520 });
1521
1522 });

```


Checkout

Changes need to be done to checkout process with subscription products.

Modify paymentmethods.isml

Locate template

/app_storefront_core/cartridge/templates/default/checkout/billing/paymentmethods.isml. Add code below to force show form with credit card payment methods.

- 1) Set isSubPro variable which will indicate if cart has items with subscription:

```
<isscript>
var SubscribeProLib =
require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib');
</isscript>

<isset name="isSubPro" value="${SubscribeProLib.isSubPro()}" scope="page" />
```

- 2) Change following condition to:

```
<isif condition="${pdict.OrderTotal > 0 || isSubPro}">
```

- 3) Add code below to render message, informing customer that credit card is required.

```
<isif condition="${pdict.OrderTotal <= 0 && isSubPro}"></fieldset>
  <div class="subpro-
message">${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproCreditCar
dRequirementMsg')}</div>
</isif>
```

- 4) Add to force show form with credit card payment methods.

```
<isif condition="${pdict.CurrentCustomer.authenticated}">
  <isif condition="${isSubPro}">
    <isset name="saveInputField"
value="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}" scope="page" />

    <div class="form-row label-inline form-indent">
      <div class="field-wrapper">
        <input class="input-checkbox" type="checkbox" disabled="disabled"
checked="checked" value="true">
        <input type="hidden" id="${saveInputField.htmlName}"
name="${saveInputField.htmlName}" value="true">
      </div>
      <label for="${saveInputField.htmlName}">
        <span><isprint value="${Resource.msg(saveInputField.label, 'forms', null)}"
/></span>
      </label>
      <div class="form-caption"><isprint
value="${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproSavedCredit
Msg')}" /></div>
    </div>
```

```

        <iselse>
            <inputfield
formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}"
type="checkbox" />
        </isif>
    </isif>

```

5) Add hidden form element to track the selected Customer Payment Instrument.

```

<inputfield
formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.customerPaymentInstrument
ID}" type="hidden" rowClass="visually-hidden" />

```

Here is the expected result:

```

paymentmethods.isml
<!-- ... -->
<include template="util/modules">
</include>
<iscript>
    var SubscribeProLib = require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib');
</iscript>
<isset name="isSubPro" value="${SubscribeProLib.isSubPro()}" scope="page" />

10<isif condition="${pdict.OrderTotal > 0 || isSubPro}">
11    <fieldset>
12
13    <legend>[]
14
15    <isif condition="${pdict.OrderTotal <= 0 && isSubPro}"></fieldset>
16    <div class="subpro-message">${require('/dw/system/Site').getCurrent().getCustomPreferenceValue('subproCreditCardRequirementMsg')}</div>
17    </isif>
18
19    <div class="payment-method-options form-indent">[]
20
21    <div class="form-row form-row-button">[]
22
23    <isif condition="${!empty(pdict.MissingPaymentProcessor)}">
24    <div class="billing-error">${Resource.msg('billing.missingprocessorerror', 'checkout', null)}</div>
25    </isif>
26
27    <iscomment>
28        Credit card block
29    </iscomment>
30
31    <div class="payment-method <isif condition="${!empty(pdict.selectedPaymentID)} || pdict.selectedPaymentID=='CREDIT_CARD'">payment-method-expanded</isif>" data-
32
33    <iscomment>display select box with stored credit cards if customer is authenticated</iscomment>
34    <isif condition="${pdict.CurrentCustomer.authenticated && !empty(pdict.ApplicableCreditCards)}">[]
35
36    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.owner}" type="input"/>
37
38    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.customerPaymentInstrumentID}" type="hidden" rowClass="visually-hidden" />
39
40    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.type}" type="select"/>
41
42    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.number}" type="input" dynamicname="true"/>
43
44    <div class="form-row required">[]
45
46    <iscript>[]
47    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.cvn}" type="input" rowClass="cvn" dynamicname="true" help="${help}"/>
48
49    <isif condition="${pdict.CurrentCustomer.authenticated}">
50    <isif condition="${isSubPro}">
51    <isset name="saveInputField" value="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}" scope="page" />
52
53    <div class="form-row label-inline form-indent">
54    <div class="field-wrapper">
55    <input class="input-checkbox" type="checkbox" disabled="disabled" checked="checked" value="true">
56    <input type="hidden" id="${saveInputField.htmlName}" name="${saveInputField.htmlName}" value="true">
57    </div>
58    <label for="${saveInputField.htmlName}">
59    <span><isprint value="${Resource.msg(saveInputField.label, 'forms', null)}" /></span>
60    </label>
61    <div class="form-caption"><isprint value="${require('/dw/system/Site').getCurrent().getCustomPreferenceValue('subproSavedCreditMsg')}" /></div>
62    </div>
63    <iselse>
64    <inputfield formfield="${pdict.CurrentForms.billing.paymentMethods.creditCard.saveCard}" type="checkbox" />
65    </isif>
66    </isif>
67
68    </div>

```

Modify checkoutlogin.isml

Locate template `/app_storefront_core/cartridge/templates/default/checkout/checkoutlogin.isml`.

- 1) Add code below to display message to customer.

```
<isif condition="${pdict.isSubpro}">
    <div class="subpro-
message">${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproCheckoutL
oginMsg')}</div>
</isif>
```

- 2) Find condition

```
<isif condition="${!pdict.CurrentCustomer.registered}">
```

and replace it with code below to hide 'Checkout as Guest' option if cart has items with subscription.

```
<isif condition="${!pdict.CurrentCustomer.registered && !pdict.isSubpro}">
```

Here is the expected result:



```
1 <iscontent type="text/html" charset="UTF-8" compact="true"/>
2 <isdecorate template="checkout/cart/pt_cart">
3 <isinclude template="util/modules"/>
4
5 <iscomment>Report this checkout step</iscomment>
6
7 <isreportcheckout checkoutstep="${i}" checkoutname="${CheckoutMethod}"/>
8 <div class="checkoutLogin">
9
10 <isif condition="${pdict.isSubpro}">
11     <div class="subpro-message">${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproCheckoutLoginMsg')}</div>
12 </isif>
13 <div class="col-1">
14
15     <div class="Login-box">
16
17         <h2>${Resource.msg('checkoutlogin.guestheader', 'checkout', null)}</h2>
18
19         <div class="Login-box-content clearfix">
20             <isif condition="${!pdict.CurrentCustomer.registered && !pdict.isSubpro}">
21                 <p>${Resource.msg('checkoutlogin.guestmessage', 'checkout', null)}</p>
22                 <form action="${URLUtils.httpsContinue()}" method="post">
23                     <fieldset>
24                         <div class="form-row formbuttonrow">
25                             <button type="submit" value="${Resource.msg('checkoutLogin.checkoutguestbutton', 'checkout', null)}" name="${i}>
26                             </div>
27                             <input type="hidden" name="${dw.web.CSRFProtection.getTokenName()}" value="${dw.web.CSRFProtection.generateToken}>
28                         </fieldset>
29                     </form>
30             </isif>
31             <iscomment>new customer</iscomment>
32             <p>${Resource.msg('globalaccount.createmessage', 'locale', null)}</p>
33             <form action="${URLUtils.httpsContinue()}" method="post">
```

Modify minilinetems.isml

Locate template

`/app_storefront_core/cartridge/templates/default/checkout/components/minilinetems.isml`. Add logic to show selected subscription options on mini cart and Order Summary Right Rail.

Add code block below after `<div class="mini-cart-pricing">` tag.

```
<isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
```

```

        <div class="mini-cart-subscription-options">
            <isinclude url="{URLUtils.url('SubPro-OrderSummary', 'pliUUID',
productLineItem.getUUID())}" />
        </div>
    </isif>

```

Here is the expected result:

```

95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129

```

```

<isdisplayproductavailability p_productli="${productLineItem}" p_displayinstock="${false}" p_displaypreorder="${true}"
<div class="mini-cart-pricing">
    <span class="Label">${Resource.msg('global.qty','locale',null)}</span>
    <span class="value"><isprint value="${productLineItem.quantity}" /></span>
    <isif condition="${productLineItem.bonusProductLineItem}">
        <isset name="bonusProductPrice" value="${productLineItem.getAdjustedPrice()}" scope="page"/>
        <isinclude template="checkout/components/displaybonusproductprice" />
        <isprint value="${bonusProductPriceValue}" />
    </isif>
    <isset name="productTotal" value="${productLineItem.adjustedPrice}" scope="page"/>
    <isif condition="${productLineItem.optionProductLineItems.size() > 0}">
        <isloop items="${productLineItem.optionProductLineItems}" var="optionLI">
            <isset name="productTotal" value="${productTotal.add(optionLI.adjustedPrice)}" scope="page"/>
        </isloop>
    </isif>
    <span class="mini-cart-price"><isprint value="${productTotal}" /></span>
</isif>
</div>
<isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
    <div class="mini-cart-subscription-options">
        <isinclude url="${URLUtils.url('SubPro-OrderSummary', 'pliUUID', productLineItem.getUUID())}" />
    </div>
</isif>
</div>
<isset name="itemCount" value="${itemCount+1}" scope="page"/>
</isloop>

```

Modify multishippingshipments.isml

Locate template

/app_storefront_core/cartridge/templates/default/checkout/shipping/multishipping/multishippingshipments.isml.

Add code below after <isdisplayliproduct /> tag to show subscription options for multishipping.

```

<isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
    <div class="subscription">
        <isinclude url="{URLUtils.url('SubPro-Cart', 'pliUUID',
productLineItem.getUUID())}" />
    </div>
</isif>

```

Here is the expected result:

```

multishippingshipments.isml
126         </isif>
127     </td>
128
129     <td class="item-details">
130         <iscomment>Display product line and product using module</iscomment>
131         <isdisplayliproduct p productli="${productLineItem}" p editable="${false}" />
132         <isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
133             <div class="subscription">
134                 <isinclude url="${URLUtils.url('SubPro-Cart', 'pliUUID', productLineItem.getUUID())}" />
135             </div>
136         </isif>
137     </td>
138

```

Modify summary.isml

Locate template `/app_storefront_core/cartridge/templates/default/checkout/summary/summary.isml`. Add code below after `<isdisplayliproduct />` tag to show selected subscription options on Order Review page.

```

<isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
    <div class="subscription">
        <isinclude url="${URLUtils.url('SubPro-OrderSummary', 'pliUUID',
productLineItem.getUUID())}" />
    </div>
</isif>

```

Here is the expected result:

```

summary.isml
64         </div>
65     </isif>
66 </td>
67
68     <td class="item-details">
69         <iscomment>Display product line and product using module</iscomment>
70         <isdisplayliproduct p productli="${productLineItem}" p editable="${false}" />
71         <isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
72             <div class="subscription">
73                 <isinclude url="${URLUtils.url('SubPro-OrderSummary', 'pliUUID', productLineItem.getUUID())}" />
74             </div>
75         </isif>
76     </td>
77
78     <td class="item-quantity">
79         <isprint value="${productLineItem.quantity}" />
80     </td>
81

```

Modify orderdetails.isml

Locate template `/app_storefront_core/cartridge/templates/default/components/order/orderdetails.isml`. Add code below after `<isdisplayliproduct />` tag to show elected subscription options on Order Confirmation page.

```

<isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
    <div class="subscription">
        <isinclude url="${URLUtils.url('SubPro-OrderConfirmation', 'orderNo', Order.orderNo,
'productID', productLineItem.productID)}" />
    </div>
</isif>

```

```
</div>
</isif>
```

Here is the expected result:

```
orderdetails.isml
128 </isif>
129 </div>
130 <div class="line-items">
131   <isloop items="{shipment.productLineItems}" var="productLineItem" status="pliloopstate">
132     <div class="line-item">
133       <div class="line-item-details">
134         <isif condition="{pliloopstate.first}">
135           <div class="Label">${Resource.msg('global.item','locale',null)}</div>
136         </isif>
137         <iscomment>Display product line and product using module</iscomment>
138         <isdisplaylproduct p_productli="{productLineItem}" p_editable="{false}" />
139         <isif condition="{productLineItem.custom.subproSubscriptionOptionMode}">
140           <div class="subscription">
141             <isinclude url="{URLUtils.url('SubPro-OrderConfirmation', 'orderNo', Order.orderNo, 'productID', productLineItem.productID)}" />
142           </div>
143         </isif>
144       </div>
145       <div class="line-item-quantity">
146         <isif condition="{pliloopstate.first}">
147           <div class="Label">${Resource.msg('global.qty','locale',null)}</div>
148         </isif>
149         <isprint value="{productLineItem.quantity}" />
150       </div>
151     </div>
152   </isloop>
153 </div>
```

Modify orderdetailsemail.isml

Locate template

/app_storefront_core/cartridge/templates/default/components/order/orderdetailsemail.isml.

Add code below after <isdisplaylproduct /> tag to show selected subscription options in Order Confirmation Email.

```
<isif condition="{productLineItem.custom.subproSubscriptionOptionMode}">
  <table>
    <tr>
      <td colspan="2">${Resource.msg('order.subscription.info', 'order', null)}</td>
    </tr>
    <tr>
      <td>${Resource.msg('order.subscription.delivery.mode', 'order', null)}</td>
      <td>${productLineItem.custom.subproSubscriptionSelectedOptionMode}</td>
    </tr>
    <tr>
      <td>${Resource.msg('order.subscription.delivery.interval', 'order', null)}</td>
      <td>${productLineItem.custom.subproSubscriptionInterval}</td>
    </tr>
  </table>
</isif>
```

Here is the expected result:

```

orderdetailsemail.isml
90     </isif>
91   </tr>
92 </thead>
93 <isloop items="${shipment.productLineItems}" var="productLineItem" status="pliloopstate">
94   <tr>
95     <td style="font-size:12px;font-family:arial;padding:20px 10px;vertical-align:top;">
96       <iscomment>Display product line and product using module</iscomment>
97       <isdisplayliproduct p productli="${productLineItem}" p editable="${false}"/>
98       <isif condition="${productLineItem.custom.subproSubscriptionOptionMode}">
99         <table>
100           <tr>
101             <td colspan="2">${Resource.msg('order.subscription.info', 'order', null)}</td>
102           </tr>
103           <tr>
104             <td>${Resource.msg('order.subscription.delivery.mode', 'order', null)}</td>
105             <td>${productLineItem.custom.subproSubscriptionSelectedOptionMode}</td>
106           </tr>
107           <tr>
108             <td>${Resource.msg('order.subscription.delivery.interval', 'order', null)}</td>
109             <td>${productLineItem.custom.subproSubscriptionInterval}</td>
110           </tr>
111         </table>
112       </isif>
113     </td>
114     <td style="font-size:12px;font-family:arial;padding:20px 10px;vertical-align:top;">
115       <isprint value="${productLineItem.quantity}"/>
116     </td>
117   </tr>
118 </isloop>
119

```

Modify creditcardjson.isml

Locate template `/app_storefront_core/cartridge/templates/default/checkout/billing/creditcardjson.isml`

Add a new attribute to the returned JSON object that contains the saved payment instrument UUID

```

var cc = {
  maskedNumber: pdict.SelectedCreditCard.maskedCreditCardNumber,
  holder: pdict.SelectedCreditCard.creditCardHolder,
  type: pdict.SelectedCreditCard.creditCardType,
  expirationMonth: pdict.SelectedCreditCard.creditCardExpirationMonth,
  expirationYear: pdict.SelectedCreditCard.creditCardExpirationYear,
  customerPaymentInstrumentID: pdict.SelectedCreditCard.UUID
}

```

Here is the expected result:

```

creditcardjson.isml
1 <iscontent type="application/json" charset="UTF-8" compact="true"/>
2 <isinclude template="util/jsonmodule"/>
3 <iscomment>
4     This template renders the attributes of a customer credit card payment instrument as JSON response.
5 </iscomment>
6 <isscript>
7     var cc = {
8         maskedNumber:pdict.SelectedCreditCard.maskedCreditCardNumber,
9         holder:pdict.SelectedCreditCard.creditCardHolder,
10        type:pdict.SelectedCreditCard.creditCardType,
11        expirationMonth:pdict.SelectedCreditCard.creditCardExpirationMonth,
12        expirationYear:pdict.SelectedCreditCard.creditCardExpirationYear,
13        customerPaymentInstrumentID:pdict.SelectedCreditCard.UUID
14    }
15    var json = JSON.stringify(cc);
16 </isscript>
17 <isprint value="{{$json}}" encoding="off"/>

```

Modify COBilling.js

Locate `/app_storefront_controllers/cartridge/controllers/COBilling.js` controller. Replace the code within the Transaction.wrap block to add save the credit cards first six digits and to update the saved customer payment instrument versus replacing it. This is important so that payment instruments UUID will persist for future orders placed via OCAP.

```

/** function saveCreditCard() */
Transaction.wrap(function () {
    var creditCardForm = app.getForm('billing').object.paymentMethods.creditCard;
    var customerSelectedCreditCard = creditCardForm.customerPaymentInstrumentID ?
    creditCardForm.customerPaymentInstrumentID.value : false;

    if (customerSelectedCreditCard && customerSelectedCreditCard.length > 0) {
        for (i = 0; i < creditCards.length; i++) {
            var creditcard = creditCards[i];

            if (creditcard.UUID == customerSelectedCreditCard) {
                newCreditCard = creditcard;
            }
        }

        if (!newCreditCard) {
            newCreditCard =
customer.getProfile().getWallet().createPaymentInstrument(PaymentInstrument.METHOD_CREDIT_C
ARD);
        }

        // copy the credit card details to the payment instrument
        newCreditCard.setCreditCardHolder(creditCardForm.owner.value);
        newCreditCard.setCreditCardNumber(creditCardForm.number.value);
        newCreditCard.setCreditCardExpirationMonth(creditCardForm.expiration.month.value);
        newCreditCard.setCreditCardExpirationYear(creditCardForm.expiration.year.value);
        newCreditCard.setCreditCardType(creditCardForm.type.value);

        /**
         * Subscribe Pro
         */
        newCreditCard.custom.subproCCPrefix = new String(creditCardForm.number.value).substr(0,
6);
    }
});

```



```
});
```

Here is the expected result:

```
COBilling.js | controllers
766 /**
767  * Attempts to save the used credit card in the customer payment instruments.
768  * The logic replaces an old saved credit card with the same masked credit card
769  * number of the same card type with the new credit card. This ensures creating
770  * only unique cards as well as replacing expired cards.
771  * @transactional
772  * @return {Boolean} true if credit card is successfully saved.
773  */
774 function saveCreditCard() {
775     var i, creditCards, newCreditCard;
776
777     if (customer.authenticated && app.getForm('billing').object.paymentMethods.creditCard.saveCard.value) {
778         creditCards = customer.getProfile().getWallet().getPaymentInstruments(PaymentInstrument.METHOD_CREDIT_CARD);
779
780         Transaction.wrap(function () {
781             var creditCardForm = app.getForm('billing').object.paymentMethods.creditCard;
782             var customerSelectedCreditCard = creditCardForm.customerPaymentInstrumentID ? creditCardForm.customerPaymentInstrumentID.value : false;
783
784             if (customerSelectedCreditCard && customerSelectedCreditCard.length > 0) {
785                 for (i = 0; i < creditCards.length; i++) {
786                     var creditcard = creditCards[i];
787
788                     if (creditcard.UUID == customerSelectedCreditCard) {
789                         newCreditCard = creditcard;
790                     }
791                 }
792             }
793
794             if (!newCreditCard) {
795                 newCreditCard = customer.getProfile().getWallet().createPaymentInstrument(PaymentInstrument.METHOD_CREDIT_CARD);
796             }
797
798             // copy the credit card details to the payment instrument
799             newCreditCard.setCreditCardHolder(creditCardForm.owner.value);
800             newCreditCard.setCreditCardNumber(creditCardForm.number.value);
801             newCreditCard.setCreditCardExpirationMonth(creditCardForm.expiration.month.value);
802             newCreditCard.setCreditCardExpirationYear(creditCardForm.expiration.year.value);
803             newCreditCard.setCreditCardType(creditCardForm.type.value);
804
805             /**
806              * Subscribe Pro
807              */
808             newCreditCard.custom.subproCCPrefix = new String(creditCardForm.number.value).substr(0, 6);
809         });
810     }
811     return true;
812 }
813 }
814
```

Modify COCustomer.js

Locate `/app_storefront_controllers/cartridge/controllers/COCustomer.js` controller. Add line below to send parameter `isSubpro`, which specify if cart has products with SubPro subscription, to `pdct`.

```
isSubpro: require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js').isSubPro()
```

Here is the expected result:

```

COCustomer.js
25  * may not contain the form clearing, in order to support navigating forth and back in the checkout steps without losing
26  * already entered form values.
27  */
28  function start() {
29      var oauthLoginForm = app.getForm('oauthlogin');
30      app.getForm('singleshipping').clear();
31      app.getForm('multishipping').clear();
32      app.getForm('billing').clear();
33
34      Transaction.wrap(function () {
35          Cart.goc().removeAllPaymentInstruments();
36      });
37
38      // Direct to first checkout step if already authenticated.
39      if (customer.authenticated) {
40          response.redirect(URLUtils.https('COShipping-Start'));
41          return;
42      } else {
43          var loginForm = app.getForm('login');
44          loginForm.clear();
45          oauthLoginForm.clear();
46
47          // Prepopulate login form field with customer's login name.
48          if (customer.registered) {
49              loginForm.setValue('username', customer.profile.credentials.login);
50          }
51
52          var loginAsset = Content.get('myaccount-login');
53
54          var pageMeta = require('~cartridge/scripts/meta');
55          pageMeta.update(loginAsset);
56
57          app.getView({
58              ContinueURL: URLUtils.https('COCustomer-LoginForm').append('scope', 'checkout'),
59              isSubpro: require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js').isSubPro()
60          }).render('checkout/checkoutlogin');
61      }
62  }
63  }

```

Modify COSummary.js

Locate `/app_storefront_controllers/cartridge/controllers/COSummary.js` controller. Add logic to check if cart has any credit card as a payment method (it is required for subscription). If it doesn't we pass `isSubPro: true` parameter to checkout/billing/billing template, forcing it to show form with credit card payment methods.

Add logic from code block below to `start()` method

```

const SubscribeProLib =
require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js');
let isSubpro = SubscribeProLib.isSubPro(),
    hasCreditCard = SubscribeProLib.hasCreditCard(cart);

if (isSubpro && !hasCreditCard) {
    app.getView({
        Basket: cart.object,
        ContinueURL: URLUtils.https('COBilling-Billing'),
        isSubPro: true
    }).render('checkout/billing/billing');

    return;
}

```

Here is the expected result:

```

COSummary.js
23 /**
24  * Renders the summary page prior to order creation.
25  * @param {Object} context context object used for the view
26  */
27 function start(context) {
28     var cart = Cart.get();
29
30     const SubscribeProLib = require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js');
31     let isSubpro = SubscribeProLib.isSubPro(),
32         hasCreditCard = SubscribeProLib.hasCreditCard(cart);
33
34     // Checks whether all payment methods are still applicable. Recalculates all existing non-gift certificate payment
35     // instrument totals according to redeemed gift certificates or additional discounts granted through coupon
36     // redemptions on this page.
37     var COBilling = app.getController('COBilling');
38
39     if (isSubpro && !hasCreditCard) {
40         app.getView({
41             Basket: cart.object,
42             ContinueURL: URLUtils.https('COBilling-Billing'),
43             isSubPro: true
44         }).render('checkout/billing/billing');
45
46         return;
47     }
48
49     if (!COBilling.ValidatePayment(cart)) {
50         COBilling.Start();
51         return;
52     } else {
53         Transaction.wrap(function () {

```

Modify creditcard.xml

Locate `/app_storefront_core/cartridge/forms/default/creditcard.xml` form definition. Add a new form field for the customer's saved payment instrument id.

Add the following form field:

```

<field formid="customerPaymentInstrumentID" type="string"
binding="customerPaymentInstrumentID" mandatory="false" />

```

Here is the expected result:

```

creditcard.xml
1 <?xml version="1.0"?>
2 <form xmlns="http://www.demandware.com/xml/form/2008-04-19">
3
4     <!-- field for credit card type -->
5     <field formid="type" label="creditcard.type" type="string" mandatory="true" binding="creditCardType"
6         missing-error="creditcard.typemissing">
7         <options optionid-binding="cardType" value-binding="cardType" label-binding="name"/>
8     </field>
9
10    <!-- field for credit card number -->
11    <field formid="number" label="creditcard.number" type="string" mandatory="true" masked="4" max-length="16"
12        description="creditcard.numberexample" binding="creditCardNumber"
13        missing-error="creditcard.numbermissingerror" value-error="creditcard.numbervalueerror"/>
14
15    <field formid="customerPaymentInstrumentID" type="string" binding="customerPaymentInstrumentID" mandatory="false" />
16
17    <group formid="expiration">
18        <!-- field for credit card expiration month -->
19        <field formid="month" label="resource.month" type="integer" mandatory="true" binding="creditCardExpirationMonth"
20            missing-error="creditcard.monthmissingerror" value-error="creditcard.yearvalueerror">
21            <options>
22                <option label="month.january" value="01"/>
23                <option label="month.february" value="02"/>
24                <option label="month.march" value="03"/>
25                <option label="month.april" value="04"/>
26                <option label="month.may" value="05"/>
27                <option label="month.june" value="06"/>

```

Changes need to be done to My Account section for displaying customer Subscribe Pro subscriptions. To display such information Subscribe Pro Hosted Widgets are used. Changes need to be done to checkout process with subscription products.

Modify controller Address.js

Locate /app_storefront_controllers/cartridge/controllers/Address.js.

Replace the list() method with the following:

```
function list() {
    var pageMeta = require('~cartridge/scripts/meta');

    var content = app.getModel('Content').get('myaccount-addresses');
    if (content) {
        pageMeta.update(content.object);
    }

    var viewParams = {};
    if (session.custom.newAddress) {
        viewParams.newAddress = {"address":session.custom.newAddress.sp};
        viewParams.newAddressSfccId = session.custom.newAddress.sfcc.getID();
        session.custom.newAddress = null;
    }
    if (session.custom.updatedOldAddress && session.custom.updatedNewAddress) {
        viewParams.updatedAddress = {"prev_address": session.custom.updatedOldAddress.sp,
"address": session.custom.updatedNewAddress.sp};
        session.custom.updatedNewAddress = null;
        session.custom.updatedOldAddress = null;
    }
    if (session.custom.deletedAddress) {
        viewParams.deletedAddress = {"address": session.custom.deletedAddress.sp};
        session.custom.deletedAddress = null;
    }

    app.getView(viewParams).render('account/addressbook/addresslist');
}
```

In the handleForm() method make the following changes.

After the addressForm variable declaration declare the addressHelper variable:

```
var addressHelper =
require('int_subscribe_pro/cartridge/scripts/subpro/helpers/AddressHelper');
```

Inside the addressForm.handleAction() call, replace the create() method with the following:

```
create: function () {
    var newAddress;
    if (!session.forms.profile.address.valid || !(newAddress =
Address.create(session.forms.profile.address))) {
        response.redirect(URLUtils.https('Address-Add'));
        success = false;
    }
    session.custom.newAddress = {
        "sfcc": newAddress,
        "sp": addressHelper.getSubproAddress(newAddress, session.customer.profile,
false, true)
    };
    success = true;
},
```

Replace the edit() method with the following:

```
edit: function () {
    if (!session.forms.profile.address.valid) {
        success = false;
        message = 'Form is invalid';
    }
    try {
        // We can't use Address.get() because it doesn't return a CustomerAddress
        // object, and we need to be able to access
        // the 'custom' attributes on the address. Instead, we use the address book
        let addressBook = customer.profile.addressBook;
        var prevAddress =
        addressBook.getAddress(request.httpParameterMap.addressid.value);
        session.custom.updatedOldAddress = {
            "sfcc": prevAddress,
            "sp": addressHelper.getSubproAddress(prevAddress,
            session.customer.profile, true, true)
        };
        var updatedAddress = Address.update(request.httpParameterMap.addressid.value,
        session.forms.profile.address);
        session.custom.updatedNewAddress = {
            "sfcc": updatedAddress,
            "sp": addressHelper.getSubproAddress(updatedAddress,
            session.customer.profile, true, true)
        };
        success = true;
    } catch (e) {
        success = false;
        message = e.message;
    }
},
```

And replace the remove() method with the following:

```
remove: function () {
    // We can't use Address.get() because it doesn't return a CustomerAddress object,
    // and we need to be able to access
    // the 'custom' attributes on the address. Instead, we use the address book
    let addressBook = customer.profile.addressBook;
    var deletedAddress =
    addressBook.getAddress(session.forms.profile.address.addressid.value);
    if (Address.remove(session.forms.profile.address.addressid.value)) {
        deletedAddress = null;
        success = false;
    }
    else {
        session.custom.deletedAddress = {
            "sfcc": deletedAddress,
            "sp": addressHelper.getSubproAddress(savedDeletedAddress,
            session.customer.profile, true, true)
        };
    }
}
```

In the Delete function, add the following code between the CustomerStatusCodes and deleteAddressResult variable declarations:

```
var addressHelper =
require('int_subscribe_pro/cartridge/scripts/subpro/helpers/AddressHelper');

// We can't use Address.get() because it doesn't return a CustomerAddress object, and we
```

```

need to be able to access
// the 'custom' attributes on the address. Instead, we use the address book
let addressBook = customer.profile.addressBook;
var deletedAddress = addressBook.getAddress(request.httpParameterMap.AddressID.value);
session.custom.deletedAddress = {
    "sfcc": deletedAddress,
    "sp": addressHelper.getSubproAddress(deletedAddress, session.customer.profile, true,
true)
};

```

Lastly, add the follow new route:

```

function SetSPAddressID() {
    var addressBook = customer.getProfile().getAddressBook();
    var address = addressBook.getAddress(request.httpParameterMap.addressId.value);
    var addressHelper =
require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/AddressHelper');
    addressHelper.setSubproAddressID(address, request.httpParameterMap.spAddressId.value);

    let r = require('~cartridge/scripts/util/Response');
    r.renderJSON({success: true});
}
/** Sets Subscribe Pro Address ID on SFCC Address */
exports.SetSPAddressID = guard.ensure(['get', 'https', 'loggedIn'], SetSPAddressID);

```

Modify controller PaymentInstruments.js

Locate controller /app_storefront_controllers/cartridge/controllers/PaymentInstruments.js

Replace the list() method with the following:

```

function list() {
    var wallet = customer.getProfile().getWallet();
    var paymentInstruments =
wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD_CREDIT_CARD);
    var pageMeta = require('~cartridge/scripts/meta');
    var paymentForm = app.getForm('paymentinstruments');

    paymentForm.clear();
    paymentForm.get('creditcards.storedcards').copyFrom(paymentInstruments);

    pageMeta.update(dw.content.ContentMgr.getContent('myaccount-paymentssettings'));

    var viewParams = {
        PaymentInstruments: paymentInstruments
    };

    if (session.custom.newCard) {
        viewParams.newCard = {"payment_profile": session.custom.newCard.sp};
        viewParams.newCardSfccId = session.custom.newCard.sfcc.getUUID();
        session.custom.newCard = null;
    }
    if (session.custom.updatedCard) {
        viewParams.updatedCard = {"payment_profile": session.custom.updatedCard.sp};
        session.custom.updatedCard = null;
    }
    if (session.custom.deletedCard) {
        viewParams.deletedCard = {"payment_profile": session.custom.deletedCard.sp};
        session.custom.deletedCard = null;
    }

    app.getView(viewParams).render('account/payment/paymentinstrumentlist');
}

```

```
}
```

Find the create() method. Before the if(isDuplicateCard) condition, add:

```
let subproPaymentProfileID = null;
```

Then, inside the condition add the following before the wallet.removePaymentInstrument() call:

```
if (oldCard.custom.subproPaymentProfileID) {  
    subproPaymentProfileID = oldCard.custom.subproPaymentProfileID;  
}
```

Directly between the Transaction.commit() and paymentForm.clear() calls, add the following code:

```
// Save data to session for hosted wallet widget integration  
var paymentInstruments =  
wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD_CREDIT_CARD);  
var saveCard;  
for (var i = 0; i < paymentInstruments.length; i++) {  
    var card = paymentInstruments[i];  
    if (card.creditCardNumber === ccNumber) {  
        saveCard = card;  
        break;  
    }  
}  
var paymentsHelper =  
require('int_subscribe_pro/cartridge/scripts/subpro/helpers/PaymentsHelper');  
if (!isDuplicateCard) {  
    session.custom.newCard = {  
        "sp": paymentsHelper.getSubscriptionPaymentProfile(session.customer.profile,  
saveCard, {}, false),  
        "sfcc": saveCard  
    };  
  
    if (null === session.custom.newCard) {  
        Logger.info('New card could not be mapped to a payment profile.');    }  
}  
else {  
    Transaction.begin();  
    try {  
        saveCard.custom.subproPaymentProfileID = subproPaymentProfileID;  
    }  
    catch (err) {  
        Transaction.rollback();  
        return false;  
    }  
    Transaction.commit();  
  
    session.custom.updatedCard = {  
        "sp": paymentsHelper.getSubscriptionPaymentProfile(session.customer.profile,  
saveCard, {}, true),  
        "sfcc": saveCard  
    };  
    if (null === session.custom.updatedCard) {  
        Logger.info('New card could not be mapped to a payment profile.');    }  
}
```

In the Delete() method, right inside the remove() function, add the following:

```
var paymentsHelper =  
require('int_subscribe_pro/cartridge/scripts/subpro/helpers/PaymentsHelper');
```

```

        session.custom.deletedCard = {
            "sp": paymentsHelper.getSubscriptionPaymentProfile(session.customer.profile,
action.object, {}, true),
            "sfcc": action.object
        };

```

Add the following route:

```

function SetSPPaymentProfileID() {
    var wallet = customer.getProfile().getWallet();
    var paymentInstruments = wallet.getPaymentInstruments('CREDIT_CARD');
    let paymentInstrumentId = request.httpParameterMap.paymentInstrumentId.value;
    var paymentsHelper =
require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/PaymentsHelper');
    let paymentInstrument = null;
    for (let i in paymentInstruments) {
        if (paymentInstrumentId == paymentInstruments[i].getUUID()) {
            paymentInstrument = paymentInstruments[i];
        }
    }

    let success = paymentInstrument != null;

    if (success) {
        paymentsHelper.setSubproPaymentProfileID(paymentInstrument,
request.httpParameterMap.spPaymentProfileId.value);
    }

    let r = require('~cartridge/scripts/util/Response');
    r.renderJSON({success: true});
}

/** Sets the Subscribe Pro Payment Profile ID on a SFCC Payment Instrument */
/* @see module:controllers/PaymentInstruments~SetSPPaymentProfileID */
exports.SetSPPaymentProfileID = guard.ensure(['https', 'get', 'loggedIn'],
SetSPPaymentProfileID);

```

Modify addressinclude.isml

Locate template

/app_storefront_core/cartridge/templates/default/account/addressbook/addressinclude.isml.

Insert code below at the end of the file to facilitate configuring and loading the address book widget, "AddressBookAssist".

```

<isset name="hasNewAddress" value="{ pdict.newAddress != null }" scope="page" />
<isset name="hasUpdatedAddress" value="{ pdict.updatedAddress != null }" scope="page" />
<isset name="hasDeletedAddress" value="{ pdict.deletedAddress != null }" scope="page" />
<isset name="loadWidget" value="{ hasNewAddress || hasUpdatedAddress || hasDeletedAddress
}" scope="page" />
<isif condition="{customer.profile.custom.subproCustomerID && loadWidget}">
    <!-- Subscribe Pro Address Book Assist Widget -->
    <div id="sp-address-book-widget"></div>

    <iscomment>
        Configure the Subscribe Pro Address Book Assist Widget
    </iscomment>

```



```

        <!-- Load the Subscribe Pro widget script -->
        <script
src="${require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproAddressWidgetsS
criptUrl')}"></script>

        <isset name="widgetConfig" scope="page"

            value="${require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/WidgetsHelper')
.getWidgetConfig(customer.profile.custom.subproCustomerID, 'client_credentials', 'widget',
'sp-address-book-widget')}">/>

        <!-- Pass configuration and init the Subscribe Pro widget -->
        <script>
            // Setup config for Subscribe Pro
            var widgetConfig = <isprint value="${JSON.stringify(widgetConfig)}"
encoding="off" />;
            AddressBookAssist.init(widgetConfig);
            <isif condition="${ hasNewAddress }">
                var newAddress = <isprint value="${JSON.stringify(pdikt.newAddress)}"
encoding="off" />;
                var newAddressSfccId = ' <isprint value="${pdikt.newAddressSfccId}"
encoding="off" />;';
                AddressBookAssist.onAddressCreated(newAddress).then(function (result)
{
                    $.get("${URLUtils.url('Address-SetSPAddressID')}",
{"addressId": newAddressSfccId, "spAddressId": result.id});
                });
            </isif>
            <isif condition="${ hasUpdatedAddress }">
                var updatedAddress = <isprint
value="${JSON.stringify(pdikt.updatedAddress)}" encoding="off" />;
                AddressBookAssist.onAddressUpdated(updatedAddress);
            </isif>
            <isif condition="${ hasDeletedAddress }">
                var deletedAddress = <isprint
value="${JSON.stringify(pdikt.deletedAddress)}" encoding="off" />;
                AddressBookAssist.onAddressDeleted(deletedAddress);
            </isif>
        </script>
    </isif>

```

Modify paymentinstrumentlist.isml

Locate template

/app_storefront_core/cartridge/templates/default/account/payment/paymentinstrumentlist.isml.

- 1) Inside the isdecorate tag, set the variable to define if customer is Subscribe Pro customer

```

<isset name="isSubproCustomer" value="${customer.profile.custom.subproCustomerID}"
scope="page" />

```

- 2) Insert code below just before the closing div tag for the <div class="paymentslist"> block to add Subscribe Pro “Address Wallet Assist” widget div.

```

        <isset name="hasNewCard" value="{ pdict.newCard != null }" scope="page" />
        <isset name="hasUpdatedCard" value="{ pdict.updatedCard != null }" scope="page"
/>
        <isset name="hasDeletedCard" value="{ pdict.deletedCard != null }" scope="page"
/>
        <isset name="loadWidget" value="{ hasNewCard || hasUpdatedCard || hasDeletedCard
}" scope="page" />
        <isif condition="{isSubproCustomer}">
            <!-- Subscribe Pro Wallet Assist Widget -->
            <div id="sp-wallet-assist-widget"></div>
        </isif>

```

3) Insert code below to load, configure and init the Subscribe Pro “Address Wallet Assist” widget

```

<isif condition="{isSubproCustomer && loadWidget}">
    <iscomment>
        Configure the Subscribe Pro Wallet Assist Widget
    </iscomment>

    <!-- Load the Subscribe Pro widget script -->
    <script
src="{require('dw/system/Site').getCurrent().getCustomPreferenceValue('subproWalletWid
getScriptUrl')}"></script>

        <isset name="widgetConfig" scope="page"

value="{require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/WidgetsHelper').ge
tWidgetConfig(customer.profile.custom.subproCustomerID, 'client_credentials', 'widget',
'sp-wallet-assist-widget')}" />

        <!-- Pass configuration and init the Subscribe Pro widget -->
        <script>
            // Setup config for Subscribe Pro
            var widgetConfig = <isprint value="{JSON.stringify(widgetConfig)}"
encoding="off" />;
            WalletAssist.init(widgetConfig);
            <isif condition="{ hasNewCard }">
                var newCard = <isprint value="{JSON.stringify(pdict.newCard)}"
encoding="off" />;
                WalletAssist.onPaymentProfileCreated(newCard, function (result) {
                    var newCardSfccId = '<isprint value="{pdict.newCardSfccId}"
encoding="off" />';
                    $.get("{URLUtils.url('PaymentInstruments-
SetSPPaymentProfileID')}", {"paymentInstrumentId": newCardSfccId, "spPaymentProfileId":
result.id});
                });
            </isif>
            <isif condition="{ hasUpdatedCard }">
                var updatedCard = <isprint value="{JSON.stringify(pdict.updatedCard)}"
encoding="off" />;
                WalletAssist.onPaymentProfileUpdated(updatedCard);
            </isif>
            <isif condition="{ hasDeletedCard }">
                var deletedCard = <isprint value="{JSON.stringify(pdict.deletedCard)}"
encoding="off" />;
                WalletAssist.onPaymentProfileDeleted(deletedCard);
            </isif>
        </script>
    </isif>

```

My Account side navigation

To display My subscriptions in the My Account side navigation edit asset account-nav-registered (Merchant Tools > Content > Content Assets > account-nav-registered).

Add the following:

```
<li><a title="Manage subscriptions" href="$httpsUrl(Subscriptions-List)$">My Subscriptions</a></li>
```

Modify controller Account.js

Locate `/app_storefront_controllers/cartridge/controllers/Account.js` controller. Add the following includes to the top of the controller to be used later on in the controller:

```
/* Subscribe Pro Module */
var SubscribeProLib = require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib');
var CustomerHelper = require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/CustomerHelper');
var Logger = require('dw/system/Logger');
```

Modify the `hasEditSucceeded` conditional in the `editForm` method to have some logic in the case of the conditional returning true, to update the customer profile at Subscribe Pro:

```
if (hasEditSucceeded) {
    let customer = Customer.get();

    if (customer && customer.object && customer.object.profile &&
customer.object.profile.custom.subproCustomerID) {
        let customerToPost = CustomerHelper.getSubproCustomer(customer);
        let updateResponse =
SubscribeProLib.updateCustomer(customer.object.profile.custom.subproCustomerID, customerToPost);

        if (updateResponse.error) {
            Logger.error('There was an issue updating the customer at subscribe pro: ' +
JSON.stringify(updateResponse));
        }
    }
} else {

/* Existing false logic for hasEditSucceeded */
```

Here is the expected result:

```

Account.js
1 'use strict';
2
3 /**
4  * Controller that renders the account overview, manages customer registration and password reset,
5  * and edits customer profile information.
6  */
7 @module.controllers.Account
8 */
9
10 /* API includes */
11 var Resource = require('dw/web/Resource');
12 var URLUtils = require('dw/web/URLUtils');
13 var Form = require('~/cartridge/scripts/models/FormModel');
14 var OrderMgr = require('dw/order/OrderMgr');
15
16 /* Script Modules */
17 var app = require('~/cartridge/scripts/app');
18 var guard = require('~/cartridge/scripts/guard');
19 var Transaction = require('dw/system/Transaction');
20
21 /* Subscribe Pro Module */
22 var SubscribeProLib = require('/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib');
23 var CustomerHelper = require('/int_subscribe_pro/cartridge/scripts/subpro/helpers/CustomerHelper');
24 var Logger = require('dw/system/Logger');
25
26 /**
27  * Gets a ContentModel object that wraps the myaccount-home content asset,
28  * updates the page metadata, and renders the account/accountoverview template.
29  */

```

```

Account.js
72 .*.Handles the form submission on profile update of edit profile. Handles cancel and confirm actions.*
73 .*.cancel - clears the profile form and redirects to the Account-Show controller function.*
74 .*.confirm - gets a CustomerModel object that wraps the current customer. Validates several form fields.*
75 .*.If any of the profile validation conditions fail, the user is redirected to the Account-EditProfile controller func
76 .*/
77 function editForm() {
78   app.getForm('profile').handleAction({
79     cancel: function () {
80       app.getForm('profile').clear();
81       response.redirect(URLUtils.https('Account-Show'));
82     },
83     confirm: function () {
84       var isProfileUpdateValid = true;
85       var hasEditSucceeded = false;
86       var Customer = app.getModel('Customer');
87
88       if (!Customer.checkUserName()) {
89         app.getForm('profile.customer.email').invalidate();
90         isProfileUpdateValid = false;
91       }
92
93       if (app.getForm('profile.customer.email').value() !== app.getForm('profile.customer.emailconfirm').value())
94         app.getForm('profile.customer.emailconfirm').invalidate();
95       isProfileUpdateValid = false;
96     }
97   });
98   if (!app.getForm('profile.login.password').value()) {
99     app.getForm('profile.login.password').invalidate();
100     isProfileUpdateValid = false;
101   }
102
103   if (isProfileUpdateValid) {
104     hasEditSucceeded = Customer.editAccount(app.getForm('profile.customer.email').value(), app.getForm('pr
105   if (hasEditSucceeded) {
106     let customer = Customer.get();
107
108     if (customer && customer.object && customer.object.profile && customer.object.profile.custom.subpr
109     let customerToPost = CustomerHelper.getSubproCustomer(customer);
110     let updateResponse = SubscribeProLib.updateCustomer(customer.object.profile.custom.subproCusto
111
112     if (updateResponse.error) {
113       Logger.error('There was an issue updating the customer at subscribe pro: ' + JSON.stringify
114     }
115   } else {
116     app.getForm('profile.login.password').invalidate();
117     isProfileUpdateValid = false;
118   }
119 }
120
121
122
123 if (isProfileUpdateValid && hasEditSucceeded) {

```

3.4 External Interfaces

Web service calls made to the Subscribe Pro RESTful API will make use of Sales Force Commerce Cloud Services:

<https://documentation.demandware.com/DOC1/topic/com.demandware.dochelp/WebServices/Webservices.html>

Application code should not call the web services directly but should instead call methods within the Subscribe Pro Javascript module:

`LINK-subscribe-pro/int_subscribe_pro/cartridge/scripts/subpro/lib/SubscribeProLib.js`

Service Profile

There are separate profiles for GET vs POST request to enable / disable the circuit breaker.

Name	subpro.http.prof.get	subpro.http.prof.post
Description	Profile for GET requests	Profile for POST requests
Connection Timeout (ms)	5000	5000
Enable Circuit Breaker	yes	no
Max Circuit Breaker Calls	3	0
Enable Rate Limit	1000	1000
Max Rate Limit Calls		
Rate Limit Interval (ms)		

Service Credentials

The "siteName" portion of the Service Credential comes from the Site Preference: `subproAPICredSuffix`. This allows merchants to have different credentials for each site.

The default value of the Site Preference is siteName, so that it will automatically match the default credentials.

Please note that the user password will need to be updated after import.

Name	subpro.http.cred.siteName
URL	<code>https://api.subscribepro.com/services/v2/{ENDPOINT}?{PARAMS}</code>
User	Subscribe Pro Client ID
Password	Subscribe Pro Client Secret

Name	subpro.http.cred.oauth.siteName
-------------	---------------------------------

URL	https://api.subscribepro.com/oauth/v2/{ENDPOINT}?{PARAMS}
User	Subscribe Pro Client ID
Password	Subscribe Pro Client Secret

Service Endpoints

ID	API endpoint	Description
subpro.http.get.config	GET /services/v2/config	Retrieve configuration for the authenticated account
subpro.http.get.subscriptions	GET /services/v2/subscriptions	Retrieve a collection of subscriptions.
subpro.http.post.subscription	POST /services/v2/subscription	Create a new subscription
subpro.http.post.addresses	POST /services/v2/address	Create / Update a Subscribe Pro addresses
subpro.http.post.addressfindcreate	POST /services/v2/address/find-or-create	Find a matching address or create a new one
subpro.http.get.addresses	GET /services/v2/addresses	Retrieve a collection of addresses
subpro.http.get.products	GET /services/v2/products/{id}	Retrieve a single product by id
subpro.http.get.customers	GET /services/v2/customers/{id}	Retrieve a single customer by id
subpro.http.post.customer	POST /services/v2/customer	Create a new customer
subpro.http.post.customers	POST /services/v2/customers/{id}	Update a single customer, identified by customer id
subpro.http.get.token	GET /oauth/v2/token	Get an OAuth2 access token
subpro.http.get.paymentprofile	GET /services/v2/vault/paymentprofiles/{id}	Retrieve a single payment profile by id
subpro.http.post.paymentprofile.vault	POST /services/v2/vault/paymentprofile/external-vault	Create a new payment profile for an external vault

For more details visit Subscribe Pro REST API Documentation:

<https://feat-sfcc-cd75l4i-cdbrvib5kpzoa.us.platform.sh/docs/rest>

3.5 Testing

Sandbox(es)

In order to test the application in a non-production environment, you will need to have a Subscribe Pro Sandbox.

Subscribe Pro provides "sandbox" accounts to all merchants.

- One Sandbox account is included with standard plans
- Additional sandbox accounts (or those which aren't associated with a paid plan) can be added but will incur a fee.

Integration Testing

Subscription Products

The following are some test cases that can be completed to ensure subscription products are configured correctly.

1. User's should see subscription options for products, on the product detail page, that have subscription's enabled and a corresponding product has been configured on the Subscribe Pro Platform.
2. User's should see an option for a one time purchase, if this option has been configured on Subscribe Pro.
3. User's should see an option to purchase a product on a recurring basis, if this option has been configured on Subscribe Pro.
4. User's should see the configured repeat Order options and be able to select the desired frequency of recurring orders.
5. User's should be able to add a product, with subscription options, to the Basket and see the selected options present in the: Mini-Cart, Basket, Order Details (in the right rail of Checkout), the Order Confirmation Screen and in the Order Confirmation Email.
6. User's should be able to change their subscription options while viewing the product in the Basket.
7. Subscription details should be transmitted to Subscribe Pro through a configured Job / Job Schedule.
8. Failed requests to create a subscription should be emailed to the configured user for further investigation.

My Account

The following are some test cases that can be completed to ensure that the My Account has been configured correctly.

1. User's should be able to see a list of their Subscription orders in the "My Subscriptions" section of "My Account".
2. User's should see an option to update their Subscription Payment option upon changing their saved payment instrument in "My Account".
3. User's should see an option to update their Subscription Address option upon changing their saved address in "My Account".
4. User's should be able to update their profile information in "My Account" and those details are automatically transmitted to Subscribe Pro.

Pixel / Widget Tracking

The following are some test cases that can be completed to ensure that the Subscribe Pro Widget is included in all of the necessary locations.

1. The Javascript Widget should be executed and transmitting details to Subscribe Pro via Ajax on the following pages:
 - a. My Account - Addresses
 - b. My Account - Payment Instruments
 - c. My Account - My Subscriptions
 - d. Product Detail Page
 - e. Product Search Results

4. Operations, Maintenance

4.1 Data Storage

Subscription selections and Subscribe Pro identifiers (customer, address, subscription) will be stored to the custom attributes of the Sales Force Commerce Cloud System Objects (Product, Product Line item, Order, Basket).

Customer information such as name, email, address and some payment information will be stored at Subscribe Pro for any customers that have purchased subscription products. This information will be used to process future recurring orders for the customer.

4.2 Availability

Subscribe Pro hosted services and API's perform with an uptime of 99.9% reliability.

If external services are not available for products, subscription options will not be available for subscription products. The end user will still be able to purchase products as normal on the platform but subscription options will not be available.

If external services are not available for My Account, the end user will see a My Subscription page without any content.

If external services are not available for transmitting subscription order details, via a scheduled job, an email should be sent to the configured contact and they will need to manually process the subscription.

4.3 Support

Support will be provided through the Subscribe Pro support system.

All requests should include: details of issue, email, phone, and URL.

Requests can be made at the following location:
<https://www.subscribepro.com/support/>

Technical Support Contact:

John Sparwasser
john.sparwasser@subscribepro.com


5. User Guide

5.1 Roles, Responsibilities

<LIST RECURRING TASKS THAT NEED TO BE FULFILLED BY CUSTOMER, MERCHANT TO RUN THE INTEGRATION, E.G. MANUAL FEED OF CATALOG DATA INTO 3RD PARTY SERVICE, IF APPLICABLE>



5.2 Business Manager

Subscribe Pro group is added to Custom Site Preference Groups (*Site > Site Preferences > Custom Preferences*). It contains following attributes:

Merchant Tools / Site Preferences / Custom Site Preference Groups / **Subscribe Pro** 

Cancel Apply to Other Sites Save

Instance Type
Sandbox ▼

Search by IDs...  

1-7 ▼ of 7

Name	Value	Default Value	
Subpro Credit Card Requirement Message	<input type="text" value="You need credit card to pay for SubPro subscription"/> Error message noting that a credit card is required for...	You need a credit card to pa...	Edit Across Sites
Subpro Checkout Login Message	<input type="text" value="You need to be logged in as a registered customer"/> Message informing customer that he/she needs to be ...	You need to be logged in as...	Edit Across Sites
Subscribe Pro Order Processing Error Mail	<input type="text" value="omahdybor@fluid.com"/> An email address that order subscriptions processing ...		Edit Across Sites
Subpro Apple Pay Login Message	<input type="text"/> Message informing customer that he/she needs to be ...	You need to be logged in as...	Edit Across Sites
Subscribe Pro Widget Script Url	<input type="text"/>	https://widgets.subscribepr...	Edit Across Sites
Subscribe Pro API Base Url	<input type="text"/>	https://api.subscribepro.com	Edit Across Sites
Suffix to append to the Subscribe Pro Web Service Credentials	<input type="text"/>	siteName	Edit Across Sites

5.3 Storefront Functionality

Product Detail Page

When the product page template has been updated, you should be able to see subscription options for product: one time delivery or regular delivery and drop down with delivery intervals if regular delivery is available. This information will be shown only for products for which subscription is configured in SFCC Business Manager and in Subscribe Pro Business Manager.

Womens / Clothing / Tops / Scoop Neck Tee With Applique



Scoop Neck Tee With Applique

Item No. 701644059262

★★★★★

\$39.00

SELECT COLOR



SELECT SIZE



[Size Chart](#)

AVAILABILITY

In Stock

Subscription Options

- ☐ ONE-TIME DELIVERY
- ☒ REGULAR DELIVERY - 0% DISCOUNT

DELIVERY EVERY

Monthly ▼

QTY

1

ADD TO CART




[Add to Wishlist](#)

[Add to gift registry](#)

Cart Page

If any product with subscription was added to basket, on cart page you will see the same subscription options as on PDP for such product line item. At this step subscription options can be changed. To apply changes you'll need to click on 'Update Cart' button.

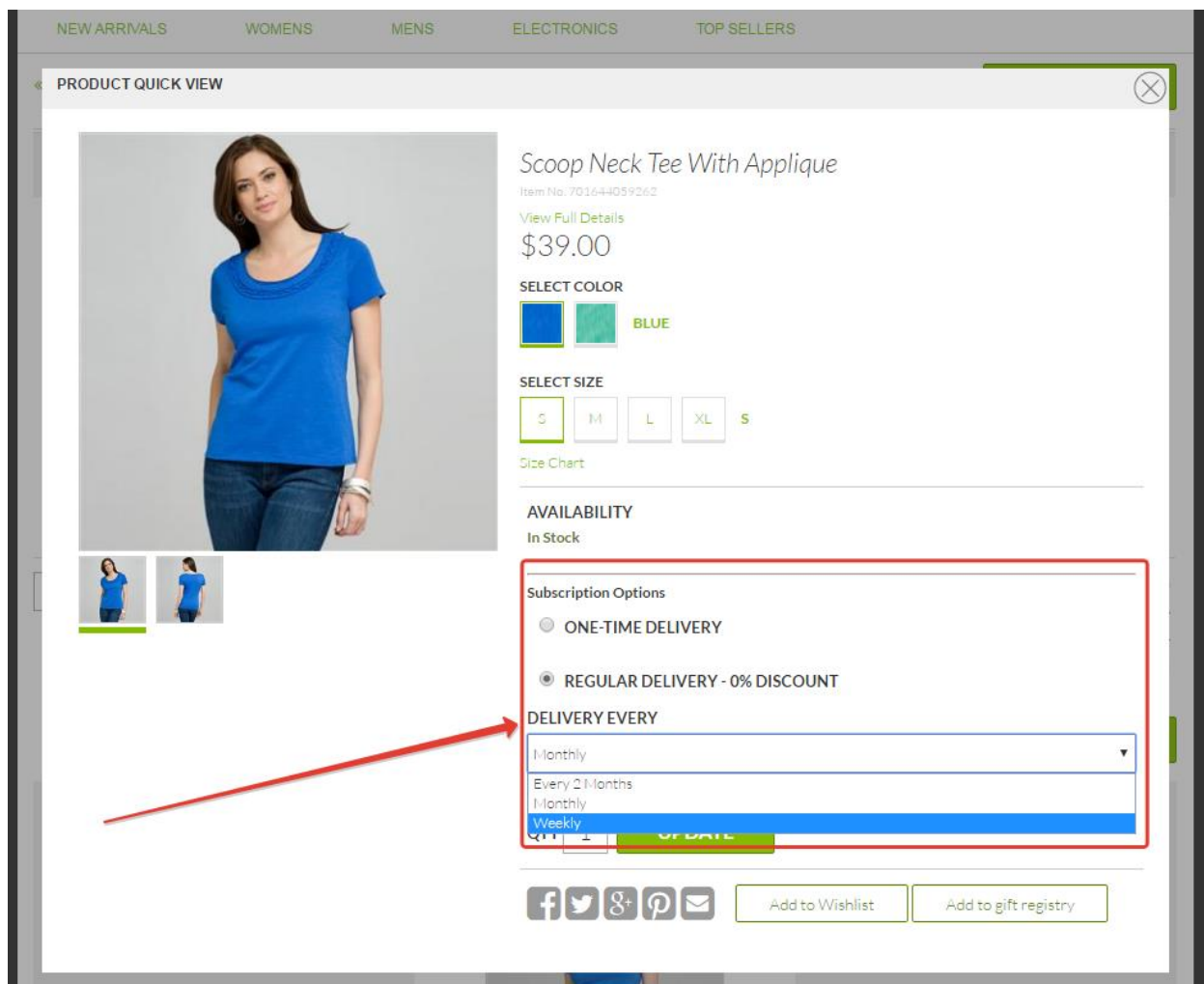
[« Continue Shopping](#)[CHECKOUT](#)

PRODUCT	DELIVERY OPTIONS	QTY	PRICE	TOTAL
 <div>Scoop Neck Tee With Applique - Product Price Adjustment Item No.: 701644059262 Color Blue Size S Edit Details</div>	Home Delivery	<input type="text" value="1"/>	In Stock Remove Add to Wishlist	List Price \$39.00 Item Total \$39.00
<div><div><div><div>Subscription Options</div><div><input type="radio"/> One-time delivery</div><div><input checked="" type="radio"/> Regular delivery - 0% Discount</div><div>Delivery every</div><div><input type="text" value="Monthly"/></div></div></div><div></div></div>				
<input type="text" value="Enter coupon code"/> Apply Update Cart				<div>Subtotal \$39.00</div> <div>Shipping -</div> <div>Sales Tax -</div> <div>Estimated Total \$39.00</div>

[« Continue Shopping](#)[CHECKOUT](#)

Product Page (Edit Details Quickview)

While on cart page you can click on the 'Edit Details' link. It will show Quick View containing PDP, where you'll see subscription options. They can be changed. To apply changes click on 'Update' button.



Login Page

If customer has any product with regular subscription option selected, he/she must be logged in as a registered customer to place order with subscriptions. In other case customer will see error message informing that he/she should log in to proceed. 'Checkout as Guest' option is excluded.

salesforce commerce cloud

Enter Keyword or Item No.

NEW ARRIVALS WOMENS MENS ELECTRONICS TOP SELLERS

Log in to place order with subscription

GUESTS OR NEW CUSTOMERS

Creating an account is easy. Just fill out the form below and enjoy the benefits of being a registered customer.

Create Account Now

[What are the benefits?](#)

RETURNING CUSTOMERS • **REQUIRED**

If you are a registered user, please enter your email and password.

• **Email Address**

• **Password**

Login ☐ Remember Me

[Forgot Password?](#)

OR

Log in using your account from

Order Summary Right Rail and Minicart

For products with subscription selected options will be shown on Order Summary Right Rail block and on Minicart.

[NEW ARRIVALS](#) [WOMENS](#) [MENS](#) [ELECTRONICS](#) [TOP SELLERS](#)

STEP 1: Shipping > STEP 2: Billing > STEP 3: Place Order

Help? 800-555-0199

SELECT OR ENTER SHIPPING ADDRESS • REQUIRED

Select an Address

• First Name

• Last Name

• Address 1

Address 2

• City

• ZIP Code

• Country

• State

• Phone

Example: 333-333-3333


☐ Add to Address Book

☐ Use this address for Billing

Is this a gift? ☐ Yes ☒ No

APO/FPO

Why is this required?



Scoop Neck Tee
With Applique
Color Blue
Size S
Qty: 1 \$39.00

Subscription info
Delivery mode
regular
Delivery interval
Monthly

Subtotal \$39.00

Edit Shipping Store \$0.00
Pickup

Sales Tax \$1.95

Order Total: \$40.95

Checkout Billing Page

To place order with a subscription the Credit Card payment method is required, even if customer has completely paid for order with alternative payment methods, without a credit card, using a gift card for example. The user must be required to enter a credit card number for the subscription. The message informing customer about it will be shown.

The screenshot displays the checkout billing page with several annotations. A green box at the top highlights a message: "USD 58.79 has been redeemed from gift certificate *****GGVC [X] Remove". A red box highlights a message: "You need credit card to pay for SubPro subscription!". A green arrow points from the green box to the "Credit Card" radio button, and a red arrow points from the red box to the "Credit Card" radio button. The "Credit Card" radio button is selected. Below the radio buttons, there is a "Select Credit Card" dropdown menu with the text "Select from saved cards". Below this, there are fields for "Name on Card", "Type" (set to "Visa"), "Number" (with an example: 4111111111111111), "Expiration Date" (set to "January" and "2016"), and "Security Code" (with a "What is this?" link). At the bottom, there is a checkbox for "Save this card" and a button labeled "CONTINUE TO PLACE ORDER >".

USD 58.79 has been redeemed from gift certificate *****GGVC [X] Remove

SELECT PAYMENT METHOD • REQUIRED

You need credit card to pay for SubPro subscription!

☐ Apple Pay ☒ Credit Card ☐ Pay Pal

☐ Bill Me Later

Select Credit Card Select from saved cards ▼

• Name on Card

• Type Visa ▼

• Number
Example: 4111111111111111

• Expiration Date: January ▼ 2016 ▼

• Security Code [What is this?](#)

☒ Save this card
Your credit card information will automatically be saved to your account for your subscriptions

CONTINUE TO PLACE ORDER >

Also if credit card was selected its information will be force saved to customer's account to pay for recurring subscriptions. Message, informing customer about it, will be shown.

SELECT PAYMENT METHOD • REQUIRED

☐ Apple Pay ☒ Credit Card ☐ Pay Pal

☐ Bill Me Later

Select Credit Card (Visa) *****1111 - Expiration 01.2022 ▼

• Name on Card Alexander Mahdybor

• Type Visa ▼

• Number *****1111
Example: 4111111111111111

• Expiration Date: January ▼ 2022 ▼

• Security Code 123 [What is this?](#)

☒ Save this card
Your credit card information will automatically be saved to your account for your subscriptions


CONTINUE TO PLACE ORDER >

Order Summary Page

When the order summary page template has been updated, you should be able to see selected subscription options for product in order.

[NEW ARRIVALS](#) [WOMENS](#) [MENS](#) [ELECTRONICS](#) [TOP SELLERS](#)

STEP 1: Shipping > STEP 2: Billing > **STEP 3: Place Order**



Scoop Neck Tee With Applique
- Product Price Adjustment
Item No.: 701644059262
Color Blue
Size S
Subscription info
Delivery mode
regular
Delivery interval
Monthly

1 In Stock

\$39.00

Subtotal\$39.00

Shipping Express\$16.99

Sales Tax\$2.80

Order Total: \$58.79

« Edit Cart

PLACE ORDER

Help? 800-555-0199

ORDER SUMMARY [Edit](#)

SHIPPING ADDRESS [Edit](#)

BILLING ADDRESS [Edit](#)


PAYMENT METHOD [Edit](#)

Order Confirmation Page

When the order confirmation page template has been updated, you should be able to see selected subscription options for product in order.

Thank you for your order.

If you have questions about your order, we're happy to take your call (800-555-0199) Monday - Friday, 8AM - 8PM

 Order Number: **00002001**

Order Placed: **Apr 26, 2017**

PAYMENT METHOD

Credit Card
Alexander Mahdybor
Visa
*****1111
Amount: \$58.79

BILLING ADDRESS

Alexander Mahdybor
Address 1234
City 5678
United States
Phone: 333-333-3333

PAYMENT TOTAL

Subtotal	\$39.00
Shipping Express	\$16.99
Sales Tax	\$2.80
Order Total:	\$58.79

SHIPMENT NO. 1

SHIPPING STATUS:

Not Shipped

METHOD:

Express

SHIPPING TO

Alexander Mahdybor
Address 1234
City 5678
United States
333-333-3333

ITEM

Scoop Neck Tee With Applique

- Product Price Adjustment

ITEM NO.: 701644059262

COLOR Blue

SIZE S

Subscription info

Delivery mode

regular

Delivery interval

Monthly

QTY


1

PRICE

\$39.00

Order Confirmation Email

When the order confirmation email template has been updated, you should be able to see selected subscription options for product in order in Order Confirmation email sent to customer.

 commerce cloud

Salesforce Commerce Cloud SiteGenesis
5 Wall Street
Burlington, MA 01803
[salesforce.com](https://www.salesforce.com)
Phone: [+1.800.555.0199](tel:+18005550199)

Thank you for your order.

If you have questions about your order, we're happy to take your call
[1 \(800\) 555-0199](tel:+18005550199), Monday - Friday 8AM - 8PM

Order Placed: Apr 26, 2017
Order Number: 00002001

Payment Information

Billing Address	Payment Method	Payment Total
██████████ ██████████ ██████████ United States ██████████	Credit Card ██████████ Visa *****1111 Amount: \$58.79	Subtotal \$39.00 Shipping Express \$16.99 Sales Tax \$2.80 Order Total: \$58.79

Shipment#1

Item	Quantity	Price	Shipping To
Scoop Neck Tee With Applique - Product Price Adjustment Item No.: 701644059262 Color Blue Size S Subscription info Delivery mode regular Delivery interval Monthly	1	\$39.00	██████████ ██████████ ██████████ United States Method: Express Shipping Status: Not Shipped

6. Release History

Version	Changes
17.1.0	Initial release
19.1.0	Re-certification