

Telco Accelerator

Solution in the Telecommunications Industry

Taking into account today's expectations of e-commerce solutions, hybris gives you a purpose-built platform that enables telecommunication providers to rely on convergent connectivity within reliability, variety, and suitability. The hybris Telco Accelerator is a single platform to sell more phones, plans, and cloud services integrating online and offline marketing.

The hybris Telco Accelerator package answers customer inquiries by enabling:

- Product package sale with promotions and customer discount
- Subscriptions
- Customer personalization
- Contract bundles
- Contract renewal
- Access to digital products and services

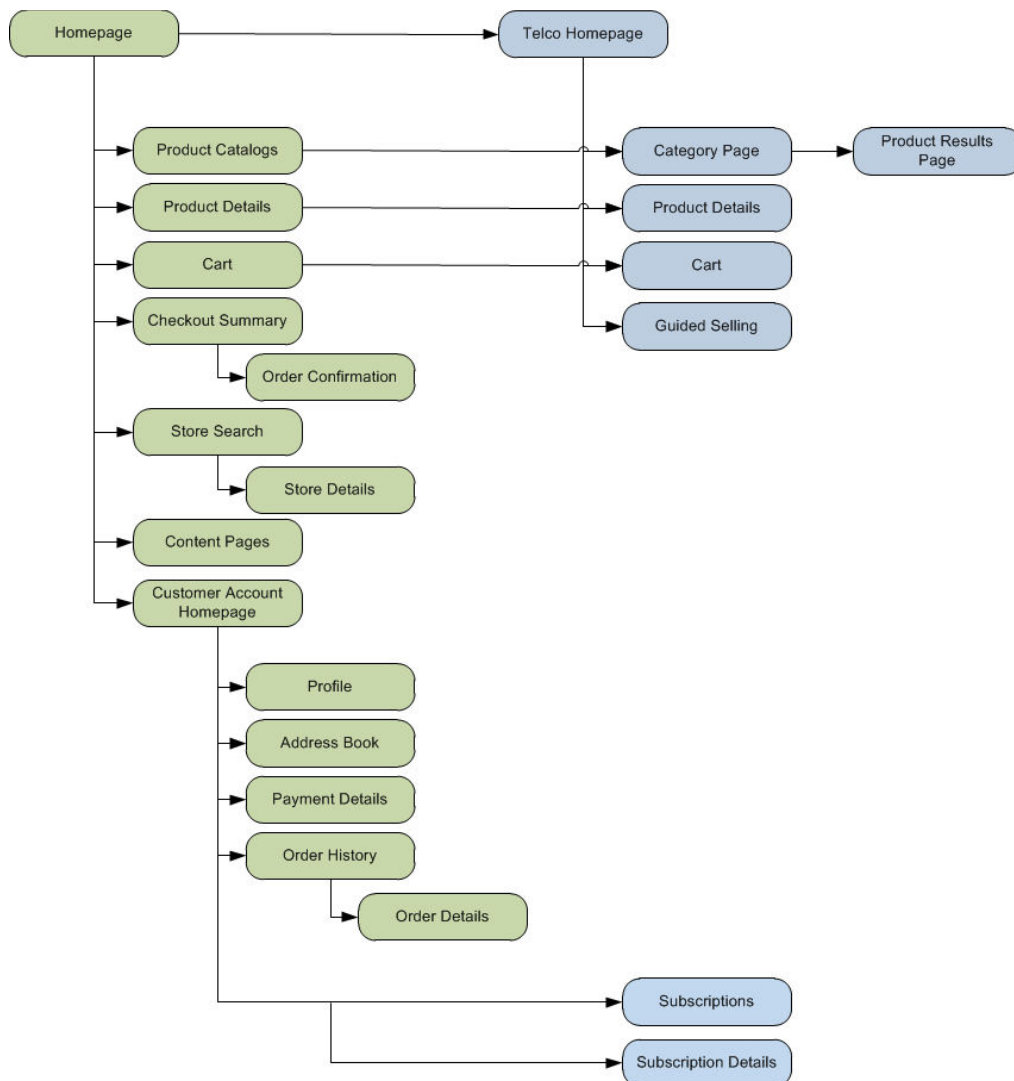
The hybris Telco Accelerator with the Subscriptions and Bundling Module enables you to enhance customer satisfaction in an intuitive and cost-effective way. By conducting customer's transactions, Telco can have an overview of trends in the market. In addition, the functional e-commerce storefront customized with languages and currencies can be easily updated frequently with information regarding the products, accessories, and services.

Key Features

- Complex and complete storefront for products and services
- Management of digital and physical goods package
- Management of selling changing devices, content, and promotions
- Bundling of products and services
- Ready for implementation of initial subscription data to customer invoicing
- Possible different scenarios like upgrade of customer account and pre-paid system
- Integration of omni-channels
- Automatic cross and upsells of compatible accessories
- Commerce Search integration and support

The hybris Telco Accelerator has been customized to the needs of the telecommunications industry:

- **Managing subscription products** - taking into account different contract lengths as well as different billing cycles per bundle item.
- **Creating product bundles** - for example, a bundle can include a Device, a Service Plan, and Service AddOns, taking into account pricing and availability dependencies between the individual bundle items.
- **Guided selling** - creating a storefront that guides the shopper through the bundle creation process.

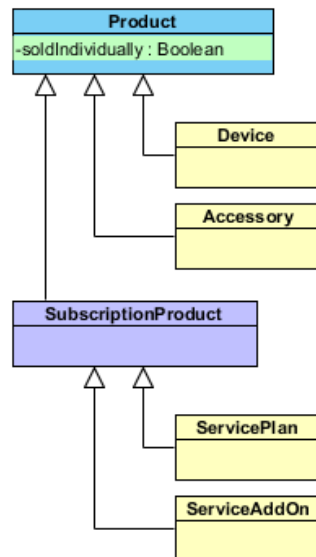


Common navigation structure for the hybrid Commerce Accelerator storefronts is illustrated on the left in green. Navigation structure specific to the hybrid Telco Accelerator storefront is illustrated on the right in blue.

Please consult the functional areas for definitions of the functionality available at each of the pages in the navigation structure.

Telecommunication Products

The b2ctelcoservicesextension extends the product data model to support telecommunication products and services. The UML model below shows how the hybris Telco Accelerator enhances the existing hybris data model:



Legend

Core Accelerator functionality
hybris Telco Accelerator functionality
Bundling Module functionality
Subscriptions Module functionality

Devices

The items of the **Device** type are defined in the **b2ctelcoservices-items.xml** file. The hybris Telco Accelerator specifies a **Device** product type, which extends the **Product** type. The **Device** product type already holds the most common fields necessary to describe wireless devices.

default attributes of the Device type:

- Operating System
- Storage
- Has Camera
- Has GPS
- Has Keyboard
- Form Factor
- Display Resolution

- Display size
- Has touchScreen
- Color
- Height
- Width
- Depth
- Weight
- Bands
- Feature Compatibility
- Entitlement

Accessories that come in the box with the device are described in the **text** format. No additional association with the device is required. If you want to specify additional accessories, you can do it as a separate Stock Keeping Unit (SKU), but this is treated independently from the device.

Devices have regular, non-subscription pricing. Price records associated with a device represent the price to be paid when the device is sold separately, that is **not** in a bundle.

Accessory

The hybris Telco Accelerator comes with the new **Accessory** product type, which already has the most common fields required to describe accessories, such as bluetooth headsets, carrying cases, and chargers.

Attribute	Description
Feature compatibility	this is an enumerated type with a list of specified options such as USB 1.0 , USB 2.0 , or Bluetooth .
Vendor compatibility	This is a string variable; it is useful to know which manufacturer makes which product because there is usually built-in compatibility between devices and accessories made by the same vendor.
Color	This refers to the color of the accessory, which is not necessarily technically significant. To the consumer, however, it is a valuable attribute.

Accessories that come in the box with the device are described as text. No additional association with the device is required. If you want to specify additional accessories, you can do it as a separate SKU, but this is treated independently from the device.

Subscription Product

The **SubscriptionProduct** type represents a type with contract renewal and typically recurring payment requirements

ServicePlan

The hybris Telco Accelerator defines a new **ServicePlan** product type which inherits from the **SubscriptionProduct**, but does not define new, or re-define existing attributes.

ServiceAddOn

The hybris Telco Accelerator comes with a new **ServiceAddOn** product type. The variety of add-on services offered ranges from mobile TV to internet data packs. The **soldIndividually** flag for this product type is set to **no**. It requires this product type to be sold as a part of a bundle with a **ServicePlan**.

Bundle Functionality

The key feature of the bundle functionality is the ability to define bundling templates consisting of products and services. Products which are bound to a bundle cannot be purchased separately, but only when combined with other products specified by the bundle template. The association of a product with a given bundle is determined by the **AbstractOrderEntry.bundleNo** parameter, which takes following values:

- **0**, in case of a standalone product.
- The number of the bundle, the product belongs to.

A bundle is not stored as a separate type in the database, but it is identified on the fly by the same **bundleNo** within the shopping cart or order. Along with that there are different kinds of configuration options of how the products can be combined as well as what they should cost in a specific combination.

Subscriptions Module

- The hybris Subscriptions Module was designed specifically to address the needs of subscription-based sales.
- Hybris enables you to manage frequency, length, renewals and other attributes unique to subscription business models.
- Powerful tools allow business users to easily set up subscription-based pricing models, pricing periods, subscription terms and conditions, entitlements and metering, and more, supporting innovation and fast time to market.
- The hybris **Subscriptions Module** is built on top of the hybris Administration Cockpit and Product Cockpit
- It extends their capabilities to cover following functionality:
 - Setting up new service plans
 - Setting up new service addons
 - Subscription terms and conditions
 - Included entitlements
 - Price plans

About the Subscription Module

- In today's competitive business, quick reaction to market needs is the key factor to success. This is especially important in growing market of digital content distribution and different subscription-based services providers, where there is no physical product. Introduction of new offerings is often held back by legacy, inefficient and cumbersome business tools.
- Customer oriented organizations must be able to instantly deliver ordered products in an electronic format, manage subscription (or frequency and usage based) pricing model and administer all different kinds of subscription entitlements.
- Due to a different and usually more complex pricing model found in digital goods distribution, the main focus is not a single purchase, but repeated transactions, subscription renewal, cross-selling of additional products and services and building

customer loyalty. Also digital content distribution companies are looking into adopting retail market best practices (such as merchandising strategies, guided selling process, etc.) to their business model needs.

➤ Another important practice in digital distribution business is to continually approach existing customer base using headless commerce such as in app purchases, guided selling and up-selling, to maximize profits.

Subscription Billing Gateway

➤ The Subscription Billing Gateway (SBG) acts as a translation interface web service between the hybris Commerce Suite and external subscription billing management provider systems, offering an end-to-end subscription-based sales solution

➤ The SBG is billing system agnostic, using a generic web service API that can be mapped to different subscription billing management providers and their different API method attributes.

➤ It is decoupled from the hybris Commerce Suite, which means that it can be easily integrated into different subscription management systems.

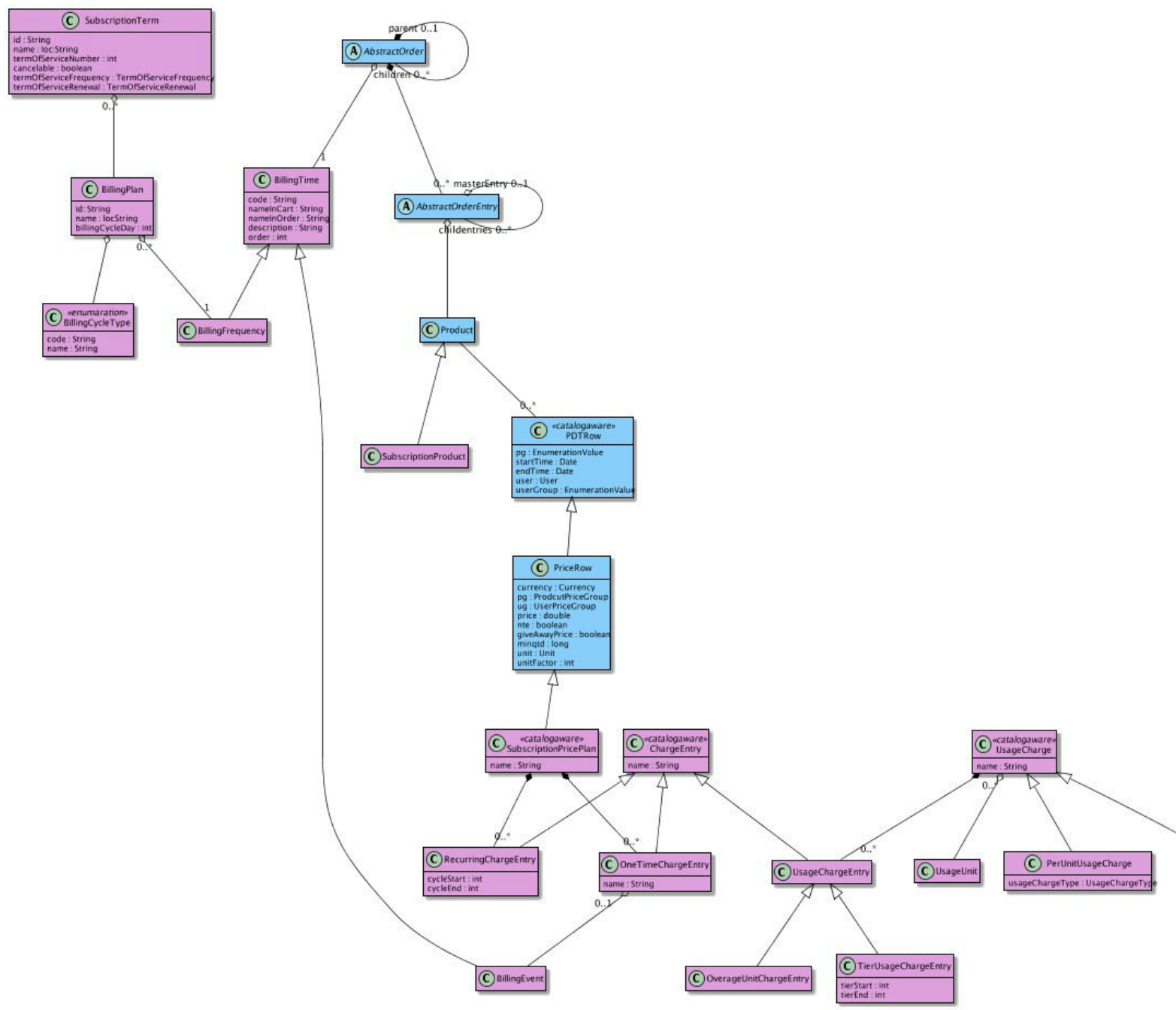
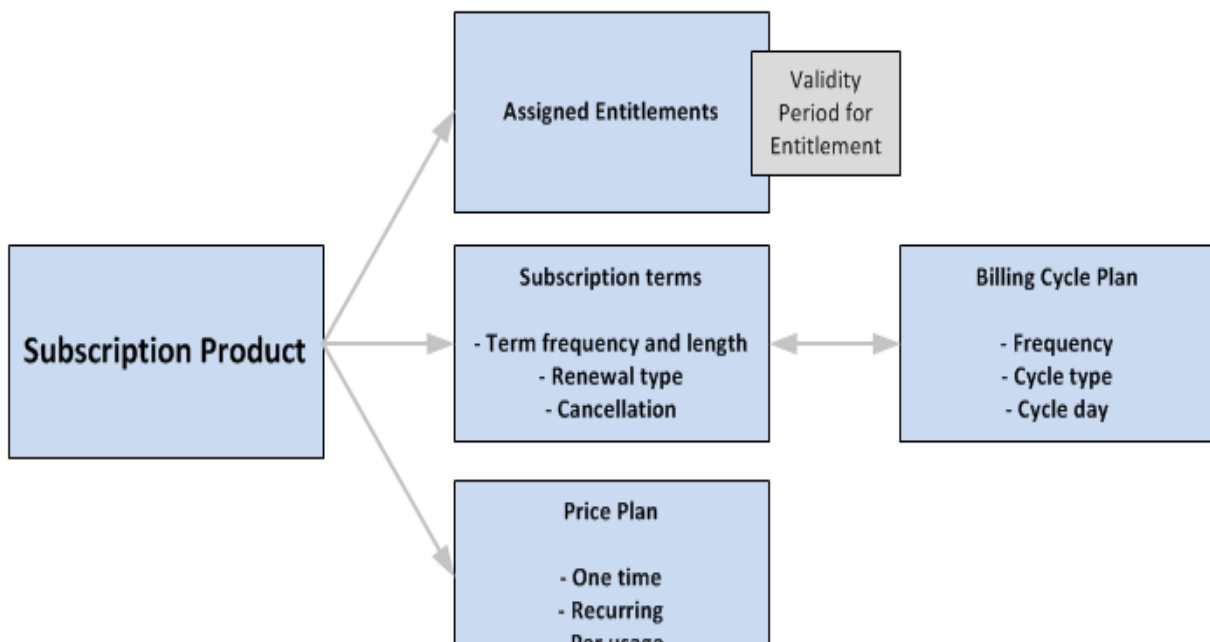
Subscription Products Features

There are a few features related to subscription products:

➤ **Entitlements** - an entitlement defines what is the value that a customer receives with a subscription product.

➤ **Subscription Terms** - they specify what are terms of a subscription and length of a customer's commitment. You can also define the conditions of renewal of a subscription or whether a customer is eligible to cancel the commitment and under which conditions. Subscription terms are related to Billing Cycle Plan where you can specify what is the frequency of payments, of what cycle type they are and what is the cycle day, that is, the day when a customer is to pay for the subscription.

➤ **Price Plan** - which defines what are the periodic charges depending on length of the commitment.



Subscription Billing

BillingTime	BillingTime defines the time component of a price. This could either be a one time BillingEvent or a recurring time BillingFrequency .
BillingPlan	The BillingPlan object defines billing-specific settings such as the frequency in which the customer should be billed and the exact date.
BillingFrequency	The BillingFrequency defines the interval on which the customer is charged. Examples include Pay now , On first bill , Daily , Monthly , and so on.
BillingEvent	BillingEvent defines specific events that are subject to being charged. Examples include Pay now , On first bill , and On cancellation .
BillingCycleType	The BillingCycleType , together with the attribute billingCycleDay , defines the handling of the billing cycle. The reference solution comes with the following default values: <ul style="list-style-type: none">• end_of_month

- `day_of_month`
- `subscription_start`

Some values require defining a **billingCycleDay** item **day_of_month**, others such as **subscription_start** do not.

Subscription Term

The **SubscriptionTerm** object stores information about the term of service definition and its renewal options. It also references a **BillingPlan** to define billing specific settings.

TermOfServiceFrequency is an enumerated type and can be set at the **SubscriptionTerm** to specify the incremental periods of time, which lapse throughout the contract. When multiplied by the integer **TermOfServicenumber**, the total duration of the contract term is found. For example, in the context of 12 months, **12** would be **TermOfServicenumber**, and **months** would be **TermOfServiceFrequency**.

The **TermsOfServiceRenewalType** can be specified at a **SubscriptionTerm** and defines handling of contract renewal once the validity period specified by the **TermOfServiceFrequency** is reached. The reference solution is delivered with the following values:

- **none**
- **auto**
- **once**
- **twice**
- **three-times**

Subscription Price Plan

SubscriptionPricePlan specifies in detail the pricing of subscription products. It includes one time charges, recurring charges, and usage charges.

Price item definition includes following attributes:

price	Actual price value, that is equals to paynow price for the SubscriptionProducts .
net	Boolean value determining whether the price is before tax (gross price), or after tax (net price). By default, prices include taxes.
ug	Price group definition, allows applying a given price definition to a group of customers defined on a Customer Pricelist .
pg	Price group definition, allows applying a given price definition to a group of products defined on a Product Pricelist .
currency	Specifies the currency of a given price definition.
name	The name of the price plan. An example is the VIP that can appear on a bill later on.

All the following charges extend the abstract super type **ChargeEntry**, which is used for storing the specific prices.

One-time Charges

OneTimeChargeEntry entities represent one-time, non-recurring charges such as an activation fee or service installation cost. **Aname** can be defined. Examples include **Activation Fee**, **BillingEvent**, and **On first bill**.

One exceptional **BillingEvent** is **paynow**, which overrides the default **paynowprice** attribute in the **SubscriptionPricePlan**.

Recurring Charges

RecurringChargeEntry entities enable flexible modeling of recurring charges. For example, service access in the first three months from signing the contract is eligible for discount and costs \$0. For the next months, the charge is \$20 until the end of the contract.

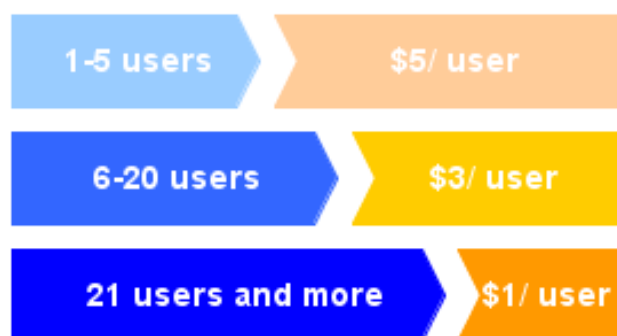


Usage Charge Type

UsageChargeType in tiered pricing defines which tier is applied in case the usage exceeds specified values.

For example, service access for a number of users costs:

- \$5 for 1-5 users,
- \$3 for 6-20 users, **Save Cart**
- \$1 for 21 users and more.



In case the usage reaches 25 users, the contract owner can be charged either \$1 for each user starting from the first one, that is highest applicable tier, or can be charged by the number of users qualifying to each tier, that is each respective tier.



Figure: Highest applicable tier.

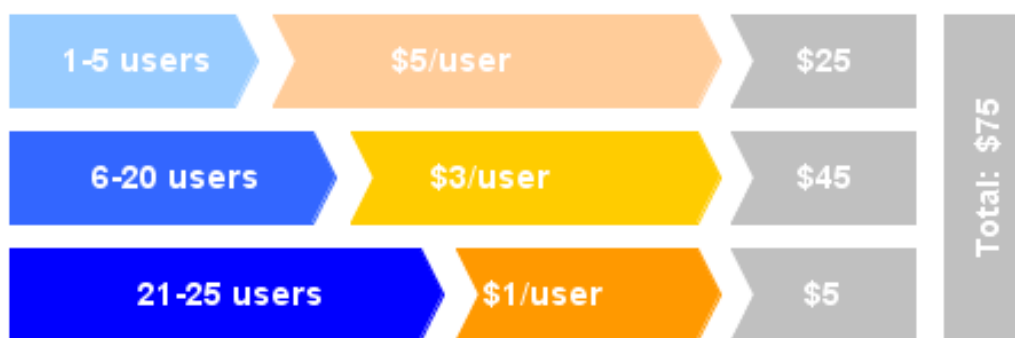


Figure: Each respective tier.

Billing Event Promotions

The **subscription-service** extension provides a functionality of assigning promotions to particular billing frequencies and events. For example:

- A customer purchases a Pay Now item for over 50\$ and receives a 5\$ promotion
- A customer purchases a monthly billing plan for 120\$ and receives a 15\$ discount each month.

You can add a billing time restriction during the creation of a new promotion in the **Restriction** tab of the **hybris Management Console**.

The **subscription-service-hmc** extension provides the necessary hMC customization to support adding billing time restrictions.

Subscription Management

Management of subscriptions is implemented in the **cissubscription** extension. Refer to the [cissubscription Extension - Technical Guide](#) for more information.

Item Type

The **subscriptionservices** extension provides a **Subscription** item type defined in the **subscriptionservices-items.xml** file, which is used to display a customer's subscriptions in the CS Cockpit.

subscriptionservices-items.xml

```
<itemtype code="Subscription" generate="true"
jaloclass="de.hybris.platform.subscriptionservices.jalo.Subscription"
extends="GenericItem"
autocreate="true" >
  <deployment table="Subscription" typecode="9503"/>
```

Multicart Implementation

Every product in the cart is present in the master **paynow** cart and in child carts, if applicable. If there is no **paynow** price for a given item, a respective entry in the master cart takes the zero value.

For example:

- Product1: 20\$ paynow, 10\$ onfirstbill and 60\$ monthly
- Product2: 100\$ paynow
- Product3: 0\$ paynow and 30\$ monthly

	Paynow	Onfirstbill	Monthly
Product1	20	Product1 10	Product1 60
Product2	100		
Product3	0		Product3 30
subtotal	120	10	90

Identifying Correct Cart Total Price

Master Cart

- Standard product - standard **paynow** price is taken for cart price calculation.
- Subscription product - **paynow** price is taken if applicable, or 0 if **paynow** price is not defined.

Child Cart

- Standard product: 0, as the **paynowprice** is defined in the master cart.
- Subscription product: one-time charge for billing event, for example **onfirstbill**, is taken in the calculation if such exists, or 0 otherwise. In case of the billing frequency item, for example **monthly** and matching **subscriptionterm.billingplan.billingfrequency** value, the last period is taken as the standard price or the first period is taken as discount price.

Save Cart

The save cart functionality primarily allows a customer to save and restore their saved carts at a later date. This functionality is provided as a set of methods embedded within independent strategies that can be wired-up, relative to the different business requirements and the front-end implementations they are used for. These strategies can be easily extended with pre/post-hooks.

The following save cart operations are currently supported:

- Save a session cart as a saved cart
- Save specific cart IDs, for a back-end operations, as saved carts
- Display a list of saved carts
- Display the details of a saved cart
- Restore a saved cart to an active session cart
- Delete saved carts
- Clone saved carts
- Edit the name and description of a saved cart

To support this functionality, the **CommerceSaveCartMethodHook** interface has been introduced. As subscription products consist of master and child carts in the hybris Platform, handling them is different than handling of regular products. Upon calling the **saveCart()** or **cloneSaveCart()** methods, the **CommerceSaveCartMethodHook** interface ensures that all the child carts are cloned/saved, but only the master cart is processed, returned and passed further. If a save or a clone cart request is sent to a child cart, the system throws the **CommerceSaveCartException**.

Subscriptions Functionality in Telco Accelerator

Telco Customer Account Homepage :

The Telco Account Homepage is the first page the customer sees when he or she logs in to their customer account. It differs from the regular Account Homepage by having the Subscriptions section. When the customer clicks the Subscriptions link, the page redirects to the [Manage Subscriptions Listing Page](#), where the customer can view and manage subscriptions.

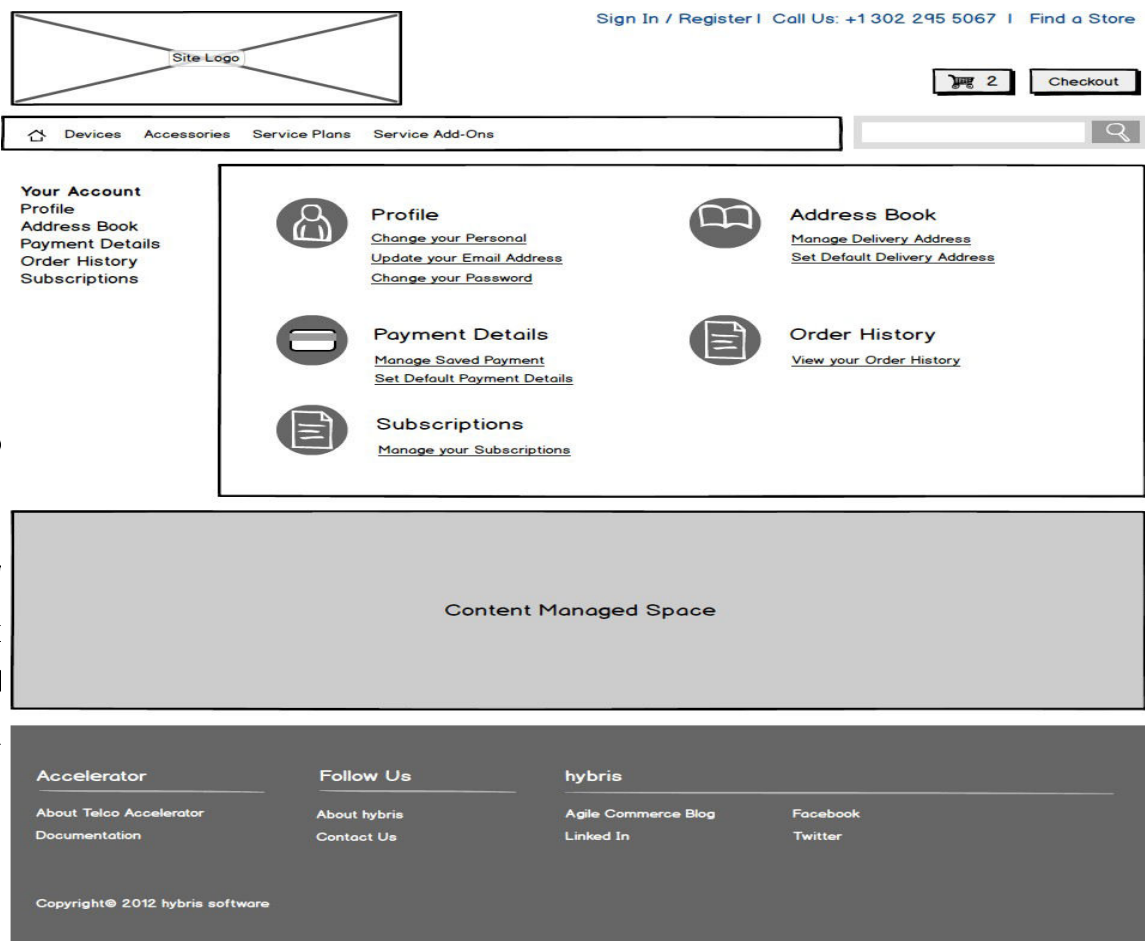
Page Components

Account Navigation slot Area on the left side of the page that allows the customer to change which section of their account they are managing.

Page Body Displays a grid containing links to the different sections of the customer account.

Each section contains:

- An icon indicating the subject
- A link to the section
- A list of operations that can be performed in the section.



Page Components

The following components appear in the page body:

Product name Name of the subscription.

Start date Start date of the subscription.

End date End date of the subscription.

Status This field displays the status of the subscription. The default status are **Active**, **Expired**, **Canceled**, and **Paused**. The subscription status may change depending on the data retrieved from the billing provider. Subscriptions are sorted by **Status** values in the following order: **Active**, **Paused**, **Canceled**, **Expired**. If two subscriptions have the same status, they are sorted by **Start Date**.

View Details button Clicking the **View Details** button displays the subscription record on the [Subscription Details Page](#)

Upgrade Options / Resume Subscription button Clicking the **UpgradeOptions** button displays the upgrade possibilities on the [Subscription Details Page](#). This button may change to **Resume Subscription** depending on the status of the subscription. If there is no upgrade for the subscription the **UpgradeOptions** button is hidden.



Your Account

- Profile
- Address Book
- Payment Details
- Order History
- Subscriptions**

Subscriptions

Manage your subscriptions

PRODUCT NAME	START DATE	END DATE	STATUS	PAYMENT DETAILS	ACTIONS
Premium TV	August 4, 2014	August 4, 2015	Active	Visa, 9875	Manage Upgrade Options
Deluxe TV	August 4, 2014	August 4, 2015	Paused	Visa, 5775	Manage Resume Subscriptions

Subscription Details Page :

The **Subscription Details** page provides the customer with a detailed view of a subscription and includes information such as **Product Name**, **Billing Frequency**, **Contract Duration**, what is **Included** and what the **Usage Charges** are. The customer can self-manage their subscription, by updating it, in several ways:

- If a subscription is active, the customer can pause it by clicking the **Pause Subscription** button.
- If a subscription is non-renewing, the customer can activate auto-renewing by clicking the **Activate Auto-Renew** button.
- If a subscription is active and cancellable, the customer can cancel it before the subscription ends by clicking the **Cancel** button. After confirming this choice, a new field **Cancelled Date** populated with the date of the cancellation appears in the page body and the page redirects to the [Manage Subscriptions Listing Page](#) with the status **Cancelled**.
- If a subscription is not cancellable, the **Cancel Subscription** button is not displayed.

Page Components

The following fields appear in the page body:

Product name	Name of the subscription. When the customer clicks the name of the subscription, the page redirects to the Telco Service Plan Product Page .
Billing Frequency	This field displays the information on the billing frequency. The default billing frequency statuses are Monthly , Quarterly , Annually , and None .
Price	This field displays the price of a subscription.
Contract Duration	This field displays the information on the period of the subscription's contract term.
Cancellable	This field displays the information whether or not a subscription is

	cancellable.
Included	This field displays the information about what entitlements are included in a subscription.
Usage Charges	This field displays the information about what entitlements are included the and additional charges for additional entitlements used.
Pause Subscription button	This button allows the customer to pause a subscription.
Resume Subscription button	This button allows the customer to resume a paused subscription. This button is not visible on the wireframe.
Cancel button	This button allows the customer to cancel the subscription given that the subscription is cancellable.
Renewal type	This field displays the subscription renewal type. The default renewal types are Non-renewing , Auto-renewing , Renews once , Renews twice , Renews three times .
Status	This field displays the status of the subscription. The default statuses are Active , Expired , Paused and Cancelled . The subscription status may change depending on the data retrieved from the billing provider.
Activate Auto-Renew button	This button allows the customer to activate auto-renewing of a subscription, if the subscription is non-renewing.
Cancelled Date	This field displays the cancellation date and is only visible when a subscription has been cancelled. This field is not visible on the wireframe above.
Service End Date	This field displays the date when the subscription ends.
Extend Subscription list	This drop-down list allows the customer to select an amount of time by which the subscription can be extended. Once an option is selected, the customer must click the Update button to submit it.
Payment Method list	This drop-down list allows the customer to change their payment method. The choices come from the Payment Details section of the user account.
Order Number	This field displays the order number. When the customer clicks the order number, the page redirects to the Order History Page .
View Billing Activity button	This button allows the customer to view their billing activity by redirecting to the Billing Activity Listing Page .

**Service Start
Date**

This field displays the date when the subscription started.

Ordered

This field displays the information about when the order was placed.

**Upgrade
Options
button**

This button redirects the customer to the [Subscription Upgrade Comparison Page](#).

The screenshot shows a user account page for a 'Basic TV' subscription. At the top, there is a header with a logo placeholder, user greeting 'Welcome back, Mathew', account links 'Your Account' and 'Sign Out', contact info 'Call us: +1 302 295 5067', and a 'Find a Store' link. A shopping cart icon shows '0' items and a 'CHECKOUT' button. Below the header is a navigation bar with links: Home, Devices, Accessories, Service Plans, Service Add Ons, TV Channels, and a search bar. The main content area is divided into two columns. The left column, 'Your Account', has a sidebar with links: Profile, Address Book, Payment Details, Order History, and Subscriptions (highlighted). The right column, 'Basic TV', has a green 'Upgrade Options' button. Below this is the 'SUBSCRIPTION DETAILS' section with a table of information: Billing Frequency (Monthly), Price (From 1 to 1: \$0.00, From 2 onwards: \$29.00 Monthly, Setup Fee: \$25.00 Pay on Checkout), Contract Duration (6 month(s)), Cancellable (Yes), Included (Local and US radio stations 30 stations, Local and US radio stations 90 stations), and Usage Charges (Documentary on Demand \$3.00 / video, Movie on Demand \$4.00 / video, Blockbuster on Demand \$5.00 / video). To the right of the details is the 'MANAGE THIS SUBSCRIPTION' section with buttons for 'Pause Subscription', 'Cancel', 'Stop Auto-Renew', and 'Auto-Renew'. It also shows the status as 'active', renewal type as 'Auto-Renew', service end date as 'November 19, 2014 9:14 AM', and options to 'Extend Subscription' and 'Update'. Below this is the 'ACTIVITY' section with a 'View Billing Activity' button. A blue arrow points from the 'Order number: 000001' text to the 'View Billing Activity' button.

LOGO

Welcome back, Mathew Your Account Call us: +1 302 295 5067 | Find a Store

Sign Out

0 CHECKOUT

Home Devices Accessories Service Plans Service Add Ons TV Channels I'm looking for

Your Account

- Profile
- Address Book
- Payment Details
- Order History
- Subscriptions**

Basic TV Upgrade Options

SUBSCRIPTION DETAILS

Billing Frequency	Monthly
Price	From 1 to 1: \$0.00 From 2 onwards: \$29.00 Monthly Setup Fee: \$25.00 Pay on Checkout
Contract Duration	6 month(s)
Cancellable	Yes
Included	Local and US radio stations 30 stations Local and US radio stations 90 stations
Usage Charges	Documentary on Demand \$3.00 / video Movie on Demand \$4.00 / video Blockbuster on Demand \$5.00 / video

Return to Subscriptions

MANAGE THIS SUBSCRIPTION

Pause Subscription X Cancel

Status: active

Stop Auto-Renew

Renewal Type: Auto-Renew

Service End Date: November 19, 2014 9:14 AM
Extend Subscription Update

Visa, exp. 12 / 16 Update

ACTIVITY Order number: 000001

View Billing Activity

Service Start Date: May 19, 2014 9:14 AM
Ordered: May 19, 2014 9:14 AM

Order History Page :

The Order History page provides the customer with a summarized view of all their orders. It displays orders which are in progress, and orders which were completed.

Page Components

Account

A slot on the left hand side of the page which allows the customer

Navigation slot

to change which section of their account they are managing.

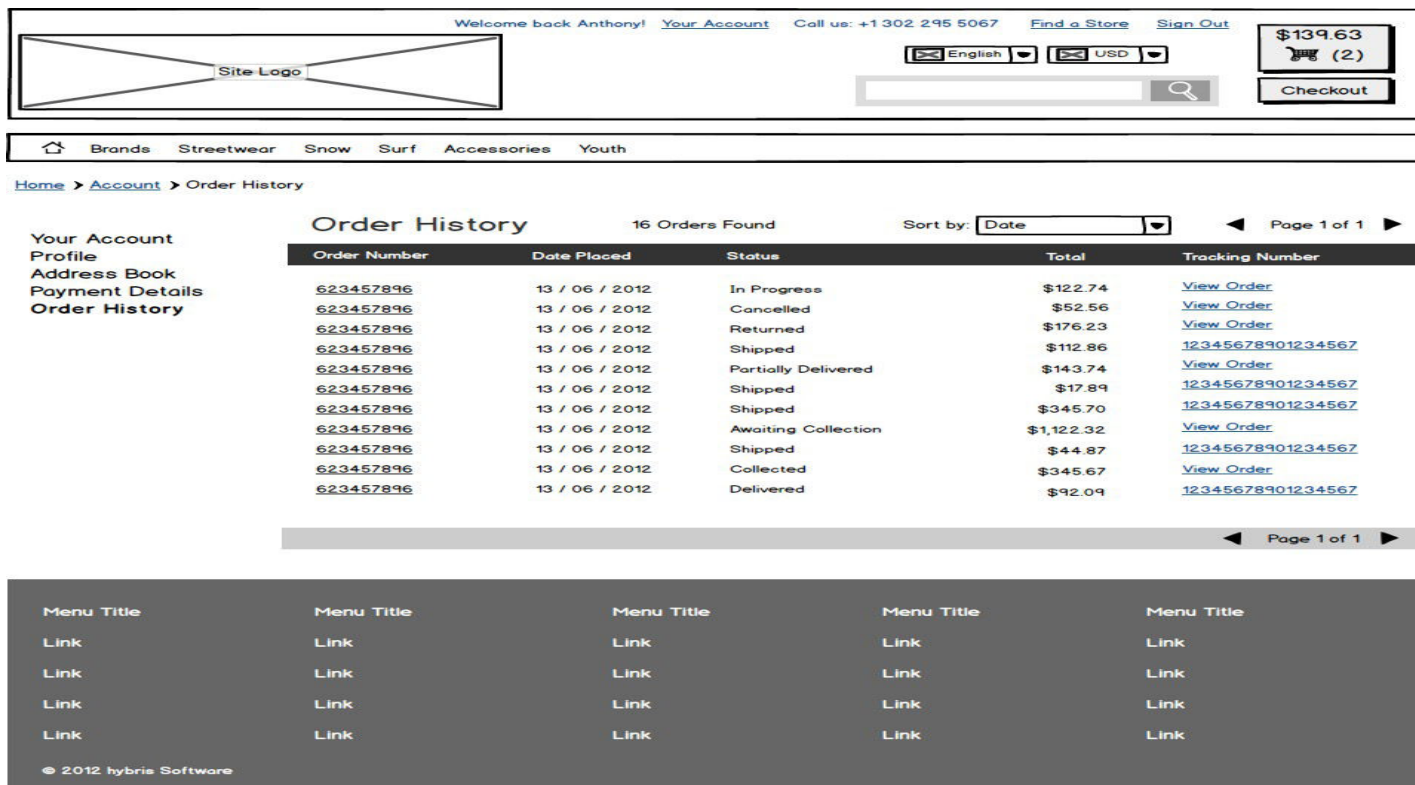
Order Number
column

Shows the order number. Links to the [Order Detail Page](#).

Displays the status of the order.

Displays the date and time the order was placed.

Allows the customer to view the order. Links to the [Order Detail Page](#).



Billing Activity Listing Page :

The **Billing Activity Listing** page provides the customer with a snap-shot view of their subscription payment information, such as the **Billing Period**, **Billing Date**, **Payment Amount**, and **Payment Status** of a particular billing period. The customer can also download a .pdf file with a more-detailed view of a particular billing period.

Page Components

The following components appear in the page body:

Billing Activity list This list displays a snap-shot view of their subscription payment information, such as **Billing Period**, **Billing Date**, **Payment Amount**, and **Payment Status** info.

Download button This button allows the customer to download a.pdf file with billing details for a given billing period.

Return to Subscription Details button This button redirects the customer to the [Subscription Details Page](#).

Functional Specification

The root page hybris Commerce Accelerator - Functional Specification could not be found in space Accelerators 5.0 to 5.6.

LOGO

Welcome back, Mathew | Your Account | Call us: +1 302 295 5067 | Find a Store

Sign Out

0 | CHECKOUT

Home | Devices | Accessories | Service Plans | Service Add Ons | TV Channels | I'm looking for

Your Account

Profile

Address Book

Payment Details

Order History

Subscriptions

Billing Activity

Basic Plan

6 Month(s) contract - monthly billing

BILLING PERIOD	BILLING DATE	PAYMENT AMOUNT	PAYMENT STATUS	
Sept. 01 / 2014 to Sept. 30 / 2014	Oct. 01 / 2014	\$5.00	To Pay	
Aug. 01 / 2014 to Aug. 30 / 2014	Sept. 01 / 2014	\$10.00	To Pay	
July 01 / 2014 to July 30 / 2014	Aug. 01 / 2014	\$10.00	Paid	Download
June 01 / 2014 to 30 June / 2014	July 01 / 2014	\$15.00	Paid	Download
May 01 / 2014 to May 30 / 2014	June 01 / 2014	\$15.00	Paid	Download
Apr. 01 / 2014 to Apr. 30 / 2014	May 01 / 2014	\$5.00	Paid	Download

[Return to Subscriptions Details](#)

Subscription Upgrade Comparison Page :

The **Subscription Upgrade Comparison** page provides the customer with a comparison of their current plan and other optional upgrade plans. Differences between the customer's current plan and an optional upgrade plan are marked with a tick, so the customer can clearly see what changes when they choose to upgrade their current plan to the upgrade plan.

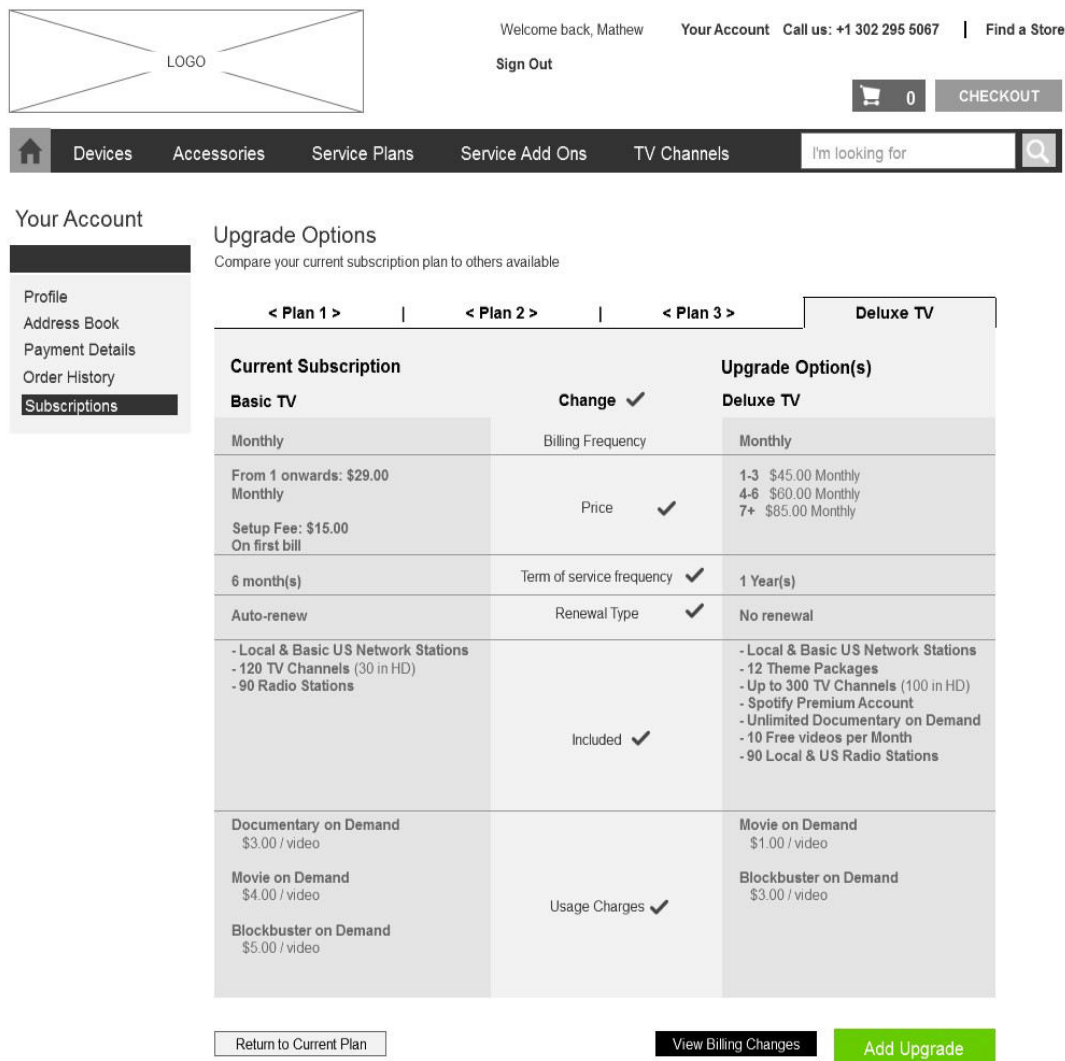
Page Components

The following fields appear in the page body:

Current Subscription column	Name and details of the customer's current subscription.
< Plan > tabs	Tabs allowing the customer to view the different optional upgrade plans. Selecting a tab results in each upgrade option being displayed in the Upgrade option(s) column one-at-a-time.
Upgrade option(s) column	Name and details of the subscription product selected from the < Plan > tabs .
Change column	This column displays whether or not there is a change in any of the subscription properties should the customer upgrade from their current to the selected optional upgrade plan. If a change is present, a tick is displayed.
Return to Current Plan button	Clicking this button redirects the customer to the Subscription Details Page .
View Billing Changes button	Clicking this button displays the Proposed Billing Changes Modal .
Add Upgrade button	Clicking this button passes the selected optional upgrade plan and redirects the customer to the Telco Cart page, to start the checkout process. The button is disabled if the customer already added an upgrade to this subscription to the cart.

Functional Specification

The root page hybris Commerce Accelerator - Functional Specification could not be found in space Accelerators 5.0 to 5.6.



Proposed Billing Changes Modal:

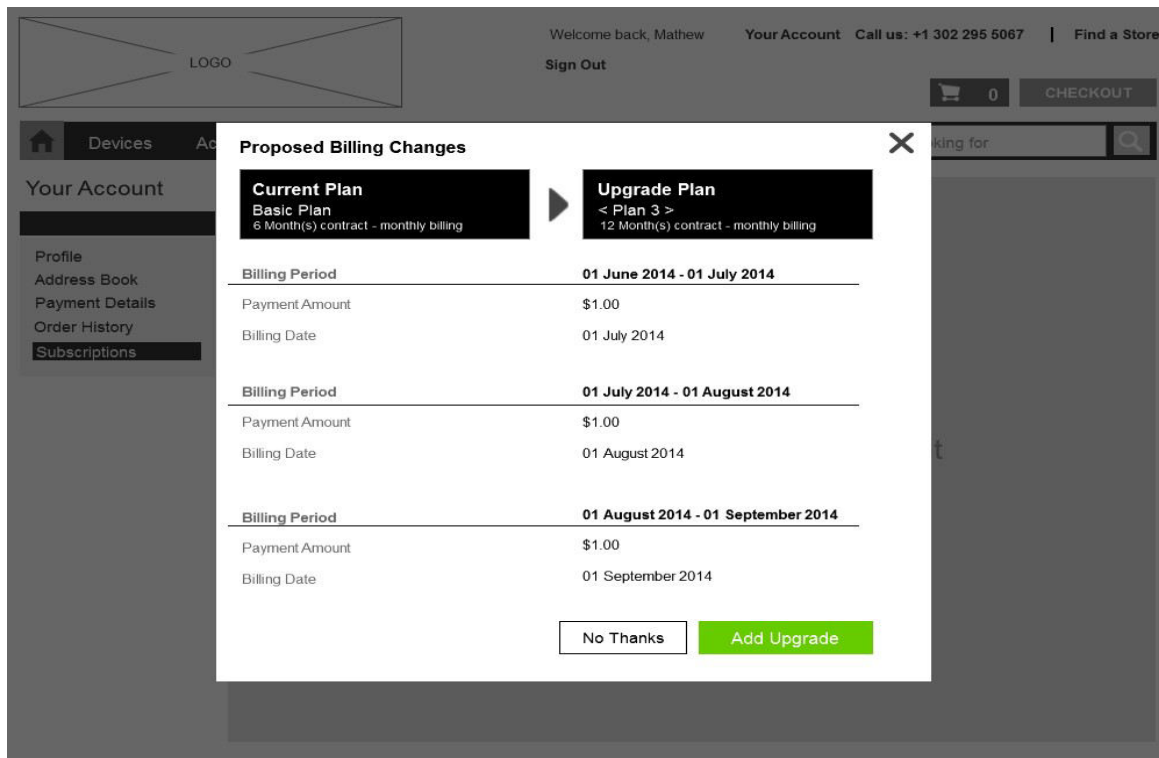
The **Proposed Billing Changes** modal provides the customer with a detailed view of billing changes connected to the upgrade of their subscription.

Page Components

The following components appear in the page body:

No Thanks button Clicking this button redirects the customer back to the [Subscription Upgrade Comparison Page](#) without upgrading the subscription.

Add Upgrade button Clicking this button redirects the customer to the [Telco Cart](#) page, starting the checkout process.



Telco Cart :

The **Telco Cart Page** has the following key differences to the standard [Cart Page](#) page:

- **Multiple price columns:** These reflect the fact that the different bundle elements could have different billing cycles.
- **Bundle visibility**
 - Bundles are separated from each other visually. The content is part of different child carts. Bundle products have the quantity 1.
 - Displayed names: The bundle package name is displayed on top of each bundle, the bundle component names are also displayed.
 - Standalone products are separated and their quantities can still be updated (since they are not part of a bundle, thus no dependencies and price rules are in effect).
- **Ability to edit and remove:**
 - **Edit:** Shoppers can edit all parts of a bundle except for the mandatory Pick Automatically items such as the activation fee. They can either edit by clicking the edit button within the Guided Selling Dashboard or by clicking the Edit link within the bundle line item they want to change.
 - **Remove:** Shoppers can remove a full bundle by clicking the black 'x' symbol on the very right of the package indication. However, the removal of bundle items is only possible for Service AddOns and

summary: This reflects the multiple price columns and also adds information about how much a shopper has saved by selecting a specific dual product or bundle.

Used Promotions and **Potential Promotions** information: These sections provide information on received and potential promotions for each billing method. For example: promotions applied to the Pay Now price, promotions applied to the Monthly billing, etc.

Validation of bundles:

The shoppers have created a bundle with a conflicting selection criteria, they will be alerted that they still need to add a specific item to their bundle in the following ways:

- On top of the page (for the first problem).
- Within the shopping cart overview (for all problems in all bundles).
- When they click on checkout (for the first problem).

Clicking on one of the error messages will bring the shopper to the page where it can be fixed.

[illegible]

Unzip the commerce suite .zip file.

Create Codebase with modulegen:

1. Navigate to the \${HYBRIS_BIN_DIR}/platform directory.
2. Set your ant environment by opening the setantenv.bat (Windows) or .
./setantenv.sh (Linux/Mac) file.
3. Run ant clean and select the default [development] environment.
4. Run the ant modulegen command and adjust the input.name and input.package
parameters:
- 5)choose the name of your module extension

choose the base package name of your extensions

Verify the Ant output in the console. Verify that the task completes successfully and lists the next steps.

Next steps:

```
[echo]
[echo] 1) Add your extension to your
/YOUR_PATH_TO_HYBRIS/hybris/config/locaextensions.xml
[echo]
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/bin/custom/b2ctelcotrail/b2ctelcotrailfulfilmentp
rocess"/>
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailcore
"/>
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailiniti
aldata"/>
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailfaca
des"/>
[echo] <extension
```

```
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailtest"
/>
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailstor
efront"/>
[echo] <extension
dir="/YOUR_PATH_TO_HYBRIS/hybris/bin/custom/b2ctelcotrail/b2ctelcotrailcoc
kpits"/>
[echo]
[echo] 2) Remove the following extensions from your
/YOUR_PATH_TO_HYBRIS/hybris/config/localextensions.xml
[echo] yacceleratorfulfilmentprocess,yacceleratorcore,yacceleratorinitialdata,yacceler
atorfacades,yacceleratoretest,yacceleratorstorefront,yacceleratorcockpits
[echo]
[echo] 3) Make sure the applicationserver is stopped before you build the extension
the first time.
[echo]
[echo] 4) Perform 'ant' in your hybris/platform directory.
[echo]
[echo] 5) Restart the applicationserver
[echo]
```

6) Add ur extensions in localextensions.xml:

Modify the Installer Recipe

By default, the Installer recipes use the standard yaccelerator template extensions. In order to use the newly created extensions you need to modify the b2c_telco recipe first:

Goto installer/recepies/telco_full/build.gradle

open build.gradle and add ur extensions

7) Run Modified Installer Script:

Navigate to the {HYBRIS_HOME}/installer directory.
Invoke the Installer with the b2c_telco recipe:

Goto /opt/LYCAMOBILE/hybris-commerce-suite-5.7.0.2/installer#

WINDOWS: install.bat -r b2c_telco

LINUX : ./install.sh -r b2c_telco

- Check your {HYBRIS_HOME}/hybris/config/localextensions.xml file and verify that it contains the b2ctelcotrail extensions instead of the yaccelerator template extensions.
- You will also need to make the following change in order to your Telco site to start correctly.
- In the file
/b2ctelcostorefront/resources/b2ctelcostorefront/web/spring/b2ctelcostorefront-web-spring.xml you need to change the entry

from

```
<bean id="logoutSuccessHandler"  
class="de.hybris.platform.yacceleratorstorefront.security.StorefrontLogoutSuccessH  
andler">
```

to:

```
<bean id="logoutSuccessHandler"  
  
class="de.hybris.b2ctelcotrail.storefront.security.StorefrontLogoutSuccessHandler">
```

Configure local.properties

1. Open the {HYBRIS_HOME}/hybris/config/local.properties file and add the website.b2ctelco.http and website.b2ctelco.https properties:

local.properties:

```
cis.client.subscription.mock=true
```

```
# set the mock return address to the new storefront
```

```
# (adjust this if you use the site parameter approach instead of the hosts file approach)
```

```
# for the site parameter approach do something like this:
```

```
# website.b2ctelco.http=http://localhost:9001/b2ctelcotrailstorefront/?site=b2ctelco
```

```
website.b2ctelco.http=http://b2ctelco.local:9001/b2ctelcotrailstorefront
```

```
website.b2ctelco.https=https://b2ctelco.local:9002/b2ctelcotrailstorefront
```

Initialize B2C Telco platform:

As next step you need to initialize the newly created platform using the Installer.

1. Navigate to the {HYBRIS_HOME}/installer directory.
2. Open the following file with the proper parameters:

```
WINDOWS: install.bat -r b2c_telco initialize
```

```
LINUX : ./install.sh -r b2c_telco initialize
```

Start/Stop the B2C Telco Platform:

You can use the Installer to start or stop the newly initialized platform.

1. Navigate to the {HYBRIS_HOME}/installer directory.
2. To start the platform open the following file with the proper parameters:

```
WINDOWS: install.bat -r b2c_telco start
```

```
LINUX : ./install.sh -r b2c_telco start
```

3. To stop the platform open the following file with the proper parameters:

```
WINDOWS: install.bat -r b2c_telco stop
```

```
LINUX : ./install.sh -r b2c_telco stop
```

Note:- Here we are using already created products and devices otherwise create your own products and devices

Task1: Create Bundles

Bunddeleteemplte.impex

```
$productCatalog=b2ctelcoProductCatalog
$catalogVersion=catalogversion(catalog(id[default=$productCatalog]),version[default='Online'])[unique=true,default=$productCatalog:Online]
INSERT_UPDATE BundleTemplateStatus;id[unique=true];status(code)
[default=approved];$catalogVersion
;Status_Test;
# Insert BundleTemplates
INSERT_UPDATE BundleTemplate;id[unique=true];parentTemplate(id,
version[default=1.0], $catalogVersion);version[default=1.0][unique=true];status(id,
$catalogVersion);$catalogVersion;
;Test;;3.14;Status_Test;
;Test_Device;Test:3.14;3.14;Status_Test;
;Test_ServicePlan;Test:3.14;3.14;Status_Test;
# Set the child templates again to make sure that the sequence of child templates is
correct
UPDATE BundleTemplate;id[unique=true];version[default=1.0]
[unique=true];childTemplates(id,version[default=1.0],$catalogVersion);
$catalogVersion
;Test;3.14;Test_Device:3.14;Test_ServicePlan:3.14
```

--

Bunddeletemplte_en.impex
<pre> \$productCatalog=b2ctelcoProductCatalog \$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Online'])[unique=true,default=\$productCatalog:Online] \$lang=en # Insert BundleTemplates # - 1st level bundle templates: ;<package id>;<package name> Package # - 2st level bundle templates: ;<package id>_<component id>;<package name> - <component name> Component # - <package id> = <package name> without blanks # - <component id> = <component name> without blanks UPDATE BundleTemplate;id[unique=true];name[lang=\$lang];version[default=1.0]; \$catalogVersion ;Test;MyTest Plan;3.14 ;Test_ServicePlan;MyTest Plan- Service Plan Component;3.14 ;Test_Device;MyTest Plan- Device Component;3.14 </pre>

Bunddeletemplte_Products.impex
<pre> \$productCatalog=b2ctelcoProductCatalog \$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Online'])[unique=true,default=\$productCatalog:Online] UPDATE BundleTemplate;id[unique=true];version[default=1.0] [unique=true];products(code, \$catalogVersion);\$catalogVersion ;Test_Device;3.14;2047052, 2093587, 3417123, 3417124, 3417125, 3417130, 3953616, 3961745, 3994624, 4203993, 4204005, 4204424, 4204425, 4204426, 4204427, 4204429, 4204430, 4204431, 4204432, 4204433, 4204647, 4204657, 4488511, 4488517, 4488521, 4488522, 4488527, 4500413, 4502565, 4566826, 4609502, 4619819, 4706994, 4707800, 4717902, 4717915, 4727800, 4727802, 4729405, 4730051, 4745779, 4745793, 4772821, 4776812, 4784305, 4784311, 4784313, 4794271, 4803503, 4803521, 4816405, 4840749, 4864676, 4865490, 5093961, 5093972, 5093975, 5094586, 5365412, 5647163, 5647165, 5652539, 5687446, 5690047, 5746851, 5760950, 5768336, 5768338, 5768339, 5768341, 5776294, 5776303, 5776654, 5777093, 5777882, 5777884, 5784286, 5793506, 5814834, 5844018, 5845808, 5857985, 5877517, 5877518, 5877546, 5879652, 5894108, 5898394, 5909755, 5913000, 5913004, 5913010, 5913023, 5913024, 5913025, 5913028, 5913029, 5913030, 5913032, 5913033, 5913035, 5913037, 5913039, 5913040, 5913041, 5913042, 5913043, 5913044, 5913047, 5913050, 5913053, 5913055, 5913058, 5913062, 5914890, 5914921, 5925495, 5925498, </pre>

5925499, 5925500, 5926127, 5930084, 5930085, 5937797, 6051297, 6072806, 6072822, 6072830, 6073935, 6099719, 6099720, 6142173, 6146443, 6146567, 6146568, 6146578, 6146582, 6154796, 6154798, 6154800, 6154802, 6154804, 6154808, 6154809, 6154810, 6154811, 6154813, 6154814, 6157030, 6157032, 6157037, 6157038, 6175504, 6175505, 6188053, 6241641, 6241988, 6248755, 6268517 , Apple_iPhone_6 , Apple_iPhone_6plus , Samsung_Galaxy_S5 , Samsung_Galaxy_Note_4 , Sony_Xperia_Z3;
;Test_ServicePlan;3.14;Y_GO_UNLIMITED, Y_GO_SURF_AND_TEXT, Y_GO_TEXT_ADDICT, Y_GO_LANDLINE;

Task2:Create Service Plans

Bunddeletemplte.impex

```
$productCatalog=b2ctelcoProductCatalog
$catalogVersion=catalogversion(catalog(id[default=$productCatalog]),version[default='Online'])[unique=true,default=$productCatalog:Online]
INSERT_UPDATE BundleTemplateStatus;id[unique=true];status(code)
[default=approved];$catalogVersion
;My_Test;
# Insert BundleTemplates
INSERT_UPDATE BundleTemplate;id[unique=true];parentTemplate(id,
version[default=1.0], $catalogVersion);version[default=1.0][unique=true];status(id,
$catalogVersion);$catalogVersion;
;MyPlan;;1.1;My_Test;
;MyPlan_ServicePlan;MyPlan:1.1;1.1;My_Test;
# Set the child templates again to make sure that the sequence of child templates is
correct
UPDATE BundleTemplate;id[unique=true];version[default=1.0]
[unique=true];childTemplates(id,version[default=1.0],$catalogVersion);
$catalogVersion
;MyPlan;1.1;MyPlan_ServicePlan:1.1
```

Bunddeletemplte_en.impex

```
$productCatalog=b2ctelcoProductCatalog
$catalogVersion=catalogversion(catalog(id[default=$productCatalog]),version[default='Online'])[unique=true,default=$productCatalog:Online]
$lang=en

# Insert BundleTemplates
# - 1st level bundle templates: ;<package id>;<package name> Package
```

```
# - 2st level bundle templates: ;<package id>_<component id>;<package name> -
<component name> Component
# - <package id> = <package name> without blanks
# - <component id> = <component name> without blanks
UPDATE BundleTemplate;id[unique=true];name[lang=$lang];version[default=1.0];
$catalogVersion
;MyPlan;MyTest Plan;1.1
;MyPlan_ServicePlan;MyTest Plan- Service Plan Component;1.1
```

Bunddeletemplte_Products.impex

```
$productCatalog=b2ctelcoProductCatalog
$catalogVersion=catalogversion(catalog(id[default=$productCatalog]),version[default='Online'])[unique=true,default=$productCatalog:Online]

UPDATE BundleTemplate;id[unique=true];version[default=1.0]
[unique=true];products(code, $catalogVersion);$catalogVersion
;MyPlan_ServicePlan;1.1;Y_STARTER_100_1Y, Y_STARTER_100_2Y,
Y_STARTER_200_1Y, Y_STARTER_200_2Y, Y_STARTER_300_1Y,
Y_STARTER_300_2Y, Y_SMART_600_12M, Y_SMART_600_18M,
Y_SMART_600_24M, Y_SMART_900_12M, Y_SMART_900_18M,
Y_SMART_900_24M, Y_SMART_1200_12M, Y_SMART_1200_18M,
Y_SMART_1200_24M, Y_GO_UNLIMITED, Y_GO_SURF_AND_TEXT,
Y_GO_TEXT_ADDICT, Y_GO_LANDLINE;
```

Task3:Create Device

Product.impex

ImpEx for Importing Products into B2C Telco Store

Macros / Replacement Parameter definitions

\$productCatalog=b2ctelcoProductCatalog

\$productCatalogName=B2C Telco Product Catalog

\$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Staged'])[unique=true,default=\$productCatalog:Staged]

\$onlineCatalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Online'])[unique=true,default=\$productCatalog:Online]

\$supercategories=supercategories(code, \$catalogVersion)

\$baseProduct=baseProduct(code,\$catalogVersion)

\$approved=approvalstatus(code)[default='check']

ImpEx for Importing Products

Macros / Replacement Parameter definitions

\$solrIndexedTypeId=b2ctelcoProductType

\$solrIndexedType=indexedType(identifier[default=\$solrIndexedTypeId])

Macros / Replacement Parameter definitions

\$soldIndividuallyFlag=soldIndividually[default=true]

Insert Devices

INSERT_UPDATE Device ;code[unique=true] ;\$supercategories
;manufacturerName ;manufacturerAID;description[lang=en];unit(code)
[default=pieces];ean;variantType(code);\$approved;\$catalogVersion;
\$soldIndividuallyFlag

;nokiaLumia730 ;smartphone, brand_apple ;Apple
;MB496T/A;21.03.2009; ;

UPDATE Product;code[unique=true];name[lang=en];description[lang=\$lang];
\$catalogVersion;summary[lang=\$lang]

Devices

;nokiaLumia730;iPhone 3G 16GB;<strong class=description-headline>Phone, iPod,
Internet, and more.Introducing iPhone 3G. With fast 3G wireless
technology, GPS mapping, support for enterprise features like Microsoft Exchange,
and the new App Store, iPhone 3G puts even more features at your fingertips. And
like the original iPhone, it combines three products in one — a revolutionary phone,
a widescreen iPod, and a breakthrough Internet device with rich HTML email and a
desktop-class web browser. iPhone 3G. It redefines what a mobile phone can do —

again.<strong class=description-headline>PhoneMake a call by tapping a name or send a text with the intelligent keyboard.<strong class=description-headline>iPodEnjoy music and video on a widescreen display and shop for music with a tap.<strong class=description-headline>InternetBrowse the web, get HTML email, and find yourself with GPS maps.;;<strong class=description-headline>Phone, iPod, Internet, and more.Introducing iPhone 3G...

products-media.impex

ImPex for Importing Product Media into B2C Telco Store

Macros / Replacement Parameter definitions

\$productCatalog=b2ctelcoProductCatalog

\$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Staged'])[unique=true,default=\$productCatalog:Staged]

\$thumbnail=thumbnail(code, \$catalogVersion)

\$picture=picture(code, \$catalogVersion)

\$thumbnails=thumbnails(code, \$catalogVersion)

\$detail=detail(code, \$catalogVersion)

\$normal=normal(code, \$catalogVersion)

\$others=others(code, \$catalogVersion)

\$data_sheet=data_sheet(code, \$catalogVersion)

\$medias=medias(code, \$catalogVersion)

\$galleryImages=galleryImages(qualifier, \$catalogVersion)

\$siteResource=jar:de.hybris.platform.b2ctelcostore.constants.B2ctelcostoreConstants&/b2ctelcostore/import/sampledData/productCatalogs/\$productCatalog

uses already used media container for Nokia N8 -> Product id= 6146568

UPDATE Product;code[unique=true];\$picture;\$thumbnail;\$detail;\$normal;

\$thumbnails;\$others;\$galleryImages;\$catalogVersion

;nokiaLumia730;/300Wx300H/6146568-3340.jpg;/96Wx96H/6146568-

3340.jpg;/1200Wx1200H/6146568-3340.jpg;/300Wx300H/6146568-

3340.jpg,/300Wx300H/6146568_1220.jpg,/300Wx300H/6146568_5305.jpg,/300Wx300H/6146568_5490.jpg,/300Wx300H/6146568_6953.jpg;/96Wx96H/6146568-3340.jpg,/96Wx96H/6146568_1220.jpg,/96Wx96H/6146568_5305.jpg,/96Wx96H/6146568_5490.jpg,/96Wx96H/6146568_6953.jpg;/515Wx515H/6146568-3340.jpg,/300Wx300H/6146568-3340.jpg,/96Wx96H/6146568-3340.jpg,/65Wx65H/6146568-3340.jpg,/30Wx30H/6146568-3340.jpg,/515Wx515H/6146568_1220.jpg,/300Wx300H/6146568_1220.jpg,/96Wx96H/6146568_1220.jpg,/65Wx65H/6146568_1220.jpg,/30Wx30H/6146568_1220.jpg,/515Wx515H/6146568_5305.jpg,/300Wx300H/6146568_5305.jpg,/96Wx96H/6146568_5305.jpg,/65Wx65H/6146568_5305.jpg,/30Wx30H/6146568_5305.jpg,/515Wx515H/6146568_5490.jpg,/300Wx300H/6146568_5490.jpg,/96Wx96H/6146568_5490.jpg,/65Wx65H/6146568_5490.jpg,/30Wx30H/6146568_5490.jpg,/515Wx515H/6146568_6953.jpg,/300Wx300H/6146568_6953.jpg,/96Wx96H/6146568_6953.jpg,/65Wx65H/6146568_6953.jpg,/30Wx30H/6146568_6953.jpg;6146568-3340,6146568_1220,6146568_5305,6146568_5490,6146568_6953

products-pos-stocklevels.impex

ImpEx for Importing Products Store Stock Levels into B2C Telco Store

Macros / Replacement Parameter definitions

\$productCatalog=b2ctelcoProductCatalog

\$productCatalogName=B2C Telco Product Catalog

\$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Staged'])(unique=true,default=\$productCatalog:Staged]

\$vendor=b2ctel

Create some Warehouses for the Vendor

INSERT_UPDATE Warehouse;code[unique=true];vendor(code)

[default=\$vendor];default[default='false']

;Hybris Telco - Chicago Premium Outlets

;Hybris Telco - Chrysler Building

;Hybris Telco - San Francisco Center

;Hybris Telco - Seattle Premium Outlets

;Hybris Telco - Riverwalk Marketplace

INSERT_UPDATE StockLevel;available;warehouse(code)[default='Hybris Telco - Chicago Premium Outlets',unique=true];inStockStatus(code)

[default='notSpecified'];overSelling;preOrder;productCode[unique=true];reserved

#Devices (iPhones)

;110;;;0;0;nokiaLumia730;0

INSERT_UPDATE

StockLevel;productCode[unique=true];available[default=10];warehouse(code)
[unique=true,default=warehouse_telco];inStockStatus(code)
[default=notSpecified];maxPreOrder[default=0];maxStockLevelHistoryCount[default=-1];overSelling[default=0];preOrder[default=0];reserved[default=0]
;nokiaLumia730

INSERT_UPDATE

Product;code[unique=true];stockLevels(productCode,warehouse(code));vendors(code)[default=\$vendor];\$catalogVersion
;nokiaLumia730;nokiaLumia730:warehouse_telco

products-price.impex

ImpEx for Importing B2C Telco Store Prices

#% impex.setLocale(Locale.GERMAN);

\$productCatalog=b2ctelcoProductCatalog

\$catalogVersion=catalogversion(catalog(id[default=\$productCatalog]),version[default='Staged'])[unique=true,default='\$productCatalog:Staged']

\$taxGroup=Europe1PriceFactory_PTG(code)[default=us-sales-tax-full]

Set product approval status to Approved only for those products that have prices.

\$approved=approvalstatus(code)[default='approved']

ImpEx for Importing Prices for SBG products

#% impex.setLocale(Locale.GERMAN);

\$billingEvent=billingEvent(code)[default='onfirstbill']

ImpEx for Importing Prices for Telco products

\$prices=Europe1prices[translator=de.hybris.platform.europe1.jalo.impex.Europe1PricesTranslator]

\$europe1pricefactory_ptg=Europe1PriceFactory_PTG(code)[default=us-sales-tax-full]

UPDATE Device ;code[unique=true];\$prices;\$approved;\$catalogVersion;

\$europe1pricefactory_ptg

;nokiaLumia730 ;193 USD