Data Model

Subscription Suite 2.0 | Version 1.1.0

Data Model
Subscription Suite

Table of **contents**/

Data Model
Structure

Our catalog data model is **independent** from the Zuora catalog**/**

The subscription suite catalog data model is independent from the Zuora catalog in order to provide additional functionality and to model dependencies between products. The structure described below enables the subscription suite to flexibly adjust functionality and to provide a high-level data model above all the technical details Zuora covers in its model.

At its core the suite catalog model maintains Suite Products. These Suite Products specify products a customer can buy, or a reseller can book for his customers. It specifies subscription terms, upgrade / downgrade behavior and many other topics. The Zuora rate plans are connected to the subscription suite catalog through the Suite Product Rate Plan model which allows to specify a list of Zuora RatePlans as a dependency. This flexible dependency allows e.g. to specify product bundles. The following list describes the main objects:

Suite Product

The suite product object represents the subscription suite object for representing subscribable packages. It's extending the Zuora product and product rate plan with further configuration options and constraints.

Suite Product Rate Plan

The suite product rate plan connects the subscription suite product with the Zuora catalog objects.

Suite Product Category

The suite product category object represents the subscription suite object for building product hierarchies. It supports multi inheritance and specifies a complex graph which is used for upgrade / downgrade handlings and replacements.

Data Model
Structure

Suite Product Change Group

The suite product change group object represents the subscription suite object for a list of interchangeable products. Therefore, it defines valid upgrade and downgrade paths.The following chapter will go into details and provide examples on how to use

Suite Product Replacement Group

The suite product replacement group object represents the subscription suite object for a list of replacable products. In case of an up- / downgrade of a higher level product these groups are checked for e.g. replacing addons accordingly.

The following chapter will go into details and provide examples on how to use these entities.
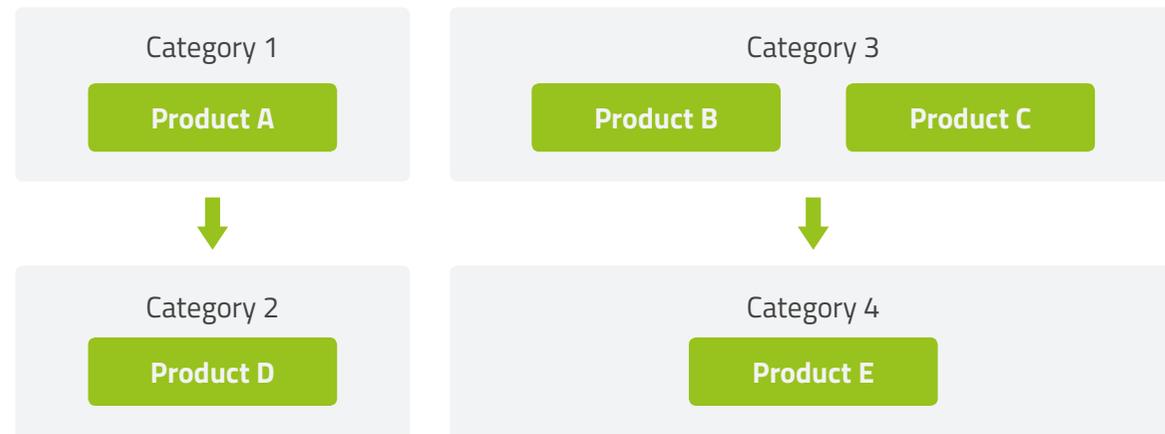
Data Model
Product Hierarchy

The product catalog makes use of **categories**/

Please note: *The described flexibility offers a lot of potential to break the graph dependencies. You can specify for example circular dependencies. We will validate the graph integrity in the future. For now, you need to take care.*

The subscription suite product catalog makes use of categories. The categories consist of labels and specify relations to other categories. Based on this, the subscription suite maintains a complex category graph which can get resolved in order to identify dependencies between categories.

Each SuiteProduct is connected to N categories. Through this link the product catalog specifies a dependency graph. These connections are later on used for managing upgrades / downgrades and product suggestions. If for example a base product is cancelled, all depending products get cancelled as well.

In this example have four categories. There are two top level categories (Cat 1 + 3) and two categories which depend on them. Within these categories there are products. All products in Cat 2 depend on a product in Cat 1. That means that you can only subscribe to a Cat 2 product in case you have already a Cat 1 product or you are subscribing to it as well in the same step. The same applies to the relation between Cat 3 and Cat 4 products. These category graphs provide a lot of flexibility – especially as you can place suite products in N categories.

Category 1	Category 3
Product A	**Product B** **Product C**

Category 2	Category 4
Product D	**Product E**

Data Model
AddOns

AddOns are **attached** to other suite products/

Addons are normal suite products which are attached to other suite products as an AddOn. The AddOn concept is used for specifying additional products which customers could buy as an addition.

As these additions are normal suite products, the whole catalog structure and feature set applies to them as well. This means that dependencies are automatically checked in order to only offer AddOns a customer can actually buy based on his current setup. Based on this, all side effects on subscription adjustments are resolved as well.

Each suite product can have N AddOns. The subscription suite AddOn concept is not related to Zuora add-on functionality.

Within the subscription suite frontend these AddOns are used to specify cross and upselling path to customers. A subscriber can use them in order to adjust his subscriptions. The AddOns functionality offers a flexible way for specifying valid adjustment paths.

Data Model
Upgrades & Downgrades

Upgrades and downgrades **require relation** between different products or services/

Offering upgrades and downgrades require initially a relation between different products / services. This relation needs to specify which products would be counted as an upgrade and which as a downgrade. On top of this, downgrades are normally not allowed or only under special circumstances. When looking at product hierarchies (e.g. add-ons) these adjustments need to cascade in order to ensure that the overall subscription status remains valid. In order to specify these upgrade and downgrade paths the subscription suite catalog offers a couple of concepts:

- **Change Groups**
- **Replacement Groups**
- **Product Hierarchies (see 2.1)**
- **AddOns (see 2.2)**

Change Groups
They specify groups of suite products which are interchangeable. The change group itself specifies further rules. It's possible for example to restrict downgrades or to specify how same level suite product changes are handled (downgrade or upgrade). Each change group can contain N suite proudcts.
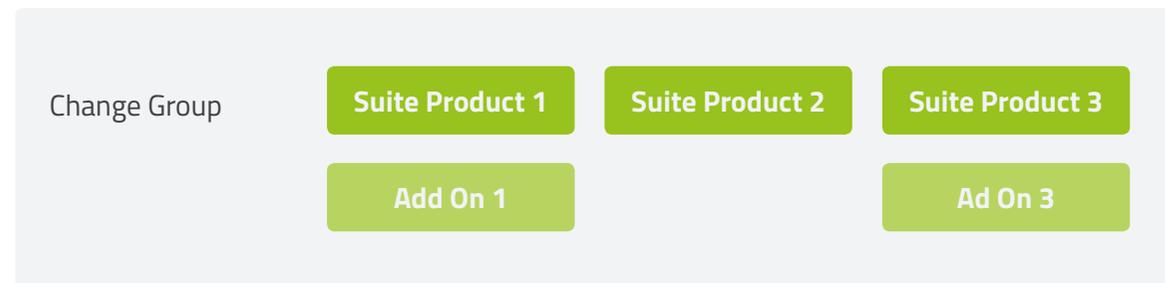
Data Model
Upgrades & Downgrades

Each suite product within this change group comes with a priority value in order to sort and compare them. In case the priority of the current suite product is lower than the new one - the change - is counted as an upgrade.

Replacement groups

They specify which suite products can be used as replacements. The general structure is the same as for change group, but in this case it's about handling cascading adjustments. Replacement groups work in combination with add-ons which you specify for each suite product. In case of an upgrade the subscription suite checks for each depending suite product if there is an add-on available which is in the same replacement group as the current add-on and if one of these replacements is specified in the new suite product's add-ons list:

Change Group	Suite Product 1	Suite Product 2	Suite Product 3
	Add On 1		Ad On 3

Replacement Group	Add On 2		Add On 4

Data Model
Upgrades & Downgrades

In the example above a change from suite product 1 to suite product 2 would be counted as an upgrade. The dependent add-ons (AddOn1 and AddOn2) would need to change as well. For AddOn2 is a replacement group specified.

Therefore, the subscription suite would offer an upgrade to AddOn 4. For AddOn 1 is no replacement group specified. The subscription suite would require a cancellation. The final action would look the following:

- **Upgrade "suite product 1" to "suite product 3"**
- **Cancel AddOn 1**
- **Replace AddOn 2 with AddOn 4**

After applying these changes, the overall subscription would be in a valid state again.

Contact
General Inquiries

Get in touch
with us **today/**

Write us

suite@keylight.de

Call us

+49.30.814 760 14

Inquiries

Dr. Marco Sarich
ms@keylight.de

Jens Wübbenhorst
jw@keylight.de

Germany

keylight GmbH
Kantstrasse 24
10623 Berlin

berlin@keylight.de
www.keylight.de

Switzerland

keylight GmbH
Militärstrasse 52
8004 Zurich

zurich@keylight.ch
www.keylight.ch

www.subscription-suite.com