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CHARTER
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Charter REST Services – RetrieveBrowsingCategoriesAndFilters - SDD

Service Design Document

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1 Overview

This Service Design Document (SDD) is to provide service implementation design details for the retrieve browsing categories and filters REST.

The REST returns the browsing categories and sub-categories hierarchy information, for example, Ordering Gateway category.

In addition, the REST returns the filter facets defined in MEC.

The recommendation for Charter Gateway is to call this REST when the Charter Gateway server is brought up, and then keep the information for later use in Tibco cache.

1.1 Related Documentation

DC#	Document Name
2424229	Charter - COP Order Flow - HLS

1.2 Assumptions

#	Assumption
1	As a result of MEC and BPT Data Gathering, Valid Values may be refined.
2	As a result of Detail Design, Additional Error Message(s) may be added (section 3.1.12.4)
3	Fields that are of 'Date' data type in the request and in the response will be expected in Long format. for Example: "Tuesday, August 4, 2015 6:50:20 AM GMT" is translated to: "1438671020480"

2 Service Definition

2.1 Service Name

Retrieve browsing categories and filters

2.2 Service Endpoints

Environment	Endpoint
Dev	Not available
QA	Not available
UAT	Not available
Prod	Not available

2.3 Required Projects

The REST URL will be GET /commerce/browsing-category-structure

2.4 Service WSDL – N/A

3 Operation Definition

Name	Request Parameters	Response	Status
retrieveBrowsingCategoriesAndFilters	ImplBrowsingCategoriesStructureRequest	ImplBrowsingCategoriesStructureResponse	

3.1 retrieveBrowsingCategoriesAndFilters

This service will return a list of browsing categories and sub categories.

3.1.1 Request Parameters

The REST input is described in section 3.1.10.1

The input includes header parameters and query parameters only.

3.1.2 Request Sample

Charter - UXF - Rest Services - JSON examples -

<http://docloader/Docloader/docloader.aspx?action=view&docnum=2507194>

3.1.3 Response

3.1.4 ImplBrowsingCategoriesStructureResponse

Field Name	Data Type	Valid Values	Mandatory /Optional	Description
implBrowsingCategoriesStructureOutput	ImplBrowsingCategoriesStructureOutput	N/A	Optional	Main output
transactionId	String	N/A	Mandatory	A unique ID for a certain REST call
timeStamp	Date as Long	N/A	Mandatory	The time of the response Expected Date as Long. see assumption #3
implErrorInfo	ImplErrorInfo[]	N/A	Optional	Used for business errors (for technical/unexpected error – HTTP error codes will be returned). See section 3.1.10.1

3.1.4.1 ImplBrowsingCategoriesStructureOutput

Field Name	Data Type	Valid values	Mandatory/Optional	Description
categories	ImplBrowsingCategory[]	N/A	Optional	Categories details

3.1.4.2 ImplBrowsingCategory

Field Name	Data Type	Valid Values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
category	BrowsingCategory	N/A	Mandatory	Category properties
childCategories	BrowsingCategoryStructure[]	N/A	Optional	Child category properties
id	String	N/A	Mandatory	Category instance ID

3.1.4.3 Link – Not in use

Field Name	Data Type	Valid values	Mandatory/Optional	Description
rel	String	N/A	Not in use	Not in use
href	String	N/A	Not in use	Not in use

3.1.4.4 BrowsingCategory

Field Name	Data Type	Valid values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
filterFacets	FilterFacet[]	N/A	Optional	Filter facets lists
Lob	LineOfBusinessDetails[]	N/A	Not in use	Represent LOB details
additionalProperties	FlexAttr[]	N/A	Optional	A list of additional properties will be represented by name and value.
Comparable	Boolean	True/false	Not in use	If value is TRUE then ProductOfferings that are related to this BrowsingCategory can be compared with each other
name	String	N/A	Mandatory	Category name
type	BrowsingCategoryType	N/A	Mandatory	List of browsing categories type.

Field Name	Data Type	Valid values	Mandatory/Optional	Description
id	String	N/A	Mandatory	Category ID
Description	String	N/A	Not in use	Category description
Code	String	N/A	Not in use	Category code

3.1.4.5 FilterFacet

Field Name	Data Type	Valid Values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
Lob	String[]	N/A	Not in use	Line Of Business, in case of multiple values send as array.
ValueRestriction	CharacteristicValue RestrictionType	N/A	Not in use	Defines how the possible set of values for the ValueType are restricted.
AdditionalProperties	FlexAttr[]	N/A	Not in use	List of additional properties that were assigned to the FilterFacet.
ValueType	CharacteristicValue BasicType	N/A	Not in use	The underlying (basic) type of values
name	String	N/A	Mandatory	Free format short textual description
id	String	N/A	Mandatory	A unique identifier
values	FilterFacetValue[]	N/A	Optional	list of values of the facet to be used for filtering
code	String	N/A	Mandatory	A unique identifier that is human readable.

3.1.4.6 CharacteristicValueRestrictionType – Not in use

Field Name	Data Type	Valid values	Mandatory/Optional	Description
value	String	"DI" - DISCRETE, "GE" - GENERAL, "RA" - RANGE	Mandatory	Discrete - restricted to a list of valid values. General - no restriction on the values. Range - a range of values

3.1.4.7 CharacteristicValueBasicType – Not in use

Field Name	Data Type	Valid values	Mandatory/Optional	Description
value	String	"BL" - BOOLEAN, "CX" - COMPLEX, "DT" - DATE, "DB" - DOUBLE, "NU" - INTEGER, "CH" - STRING.	Mandatory	Basic types, use only from the valid values list.

3.1.4.8 FilterFacetValue

Field Name	Data Type	Valid values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
valueTo	String	N/A	Optional	The upper range value that a range-type item property can take on.
value	String	BPT Values defined by MEC	Mandatory	A value that the item can take on. In the case of a range value, this represents the lower value of the range.
id	String	N/A	Mandatory	A unique identifier. Provider write only

3.1.4.9 LineOfBusinessDetails – Not in use

Field Name	Data Type	Valid values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
DisplayIdentifier	String	N/A	Optional	Define the identifier for each lob; used for presentation; example for Wireless lob, Service ID (MSISDN) is used in UI, for TV the Address, etc. valid value: SERVICE_ID, ADDRESS
DisplaySPOName	Boolean	True/false	Optional	Define the logic if to display the SPO name before to the plan name according to the implementation.
PlansCategoryStructureID	String	N/A	Optional	The associated category ID of the plans for the LOB
SmallPicture	String	N/A	Optional	Small Picture URL
BigPicture	String	N/A	Optional	Big Picture URL of the line of business
Name	String	N/A	Optional	line of business name
Code	String	N/A	Optional	line of business identifier/code

3.1.4.10 FlexAttr

Field Name	Data Type	Valid values	Mandatory/Optional	Description
name	String	N/A	Mandatory	Attribute name.
value	FlexAttrValue	N/A	Optional	Attribute values

3.1.4.11 FlexAttrValue

Field Name	Data Type	Valid values	Mandatory/Optional	Description
integerValue	Integer	N/A	Optional	Value as integer
stringValue	String	N/A	Optional	Value as string
dateValue	Date as Long	N/A	Optional	Value as date Expected Date as Long. see assumption #3
decimalValue	BigDecimal	N/A	Optional	Value as double

Field Name	Data Type	Valid values	Mandatory/Optional	Description
booleanValue	Boolean	N/A	Optional	Value as boolean
valueType	FlexAttrValueType	N/A	Mandatory	Value types

3.1.4.12 FlexAttrValueType

Field Name	Data Type	Valid values	Mandatory/Optional	Description
value	String	BOOLEAN, DATE, DECIMAL, INTEGER, STRING	Mandatory	Attribute value types. Use only from the valid values list.

3.1.4.13 BrowsingCategoryType

Field Name	Data Type	Valid values	Mandatory/Optional	Description
value	String	"NAVIGATION"	Mandatory	Navigation - This category is used for navigation

3.1.4.14 BrowsingCategoryStructure

Field Name	Data Type	Valid values	Mandatory/Optional	Description
Links	Link[]	N/A	Not in use	Not in use
category	BrowsingCategory	N/A	Mandatory	Category properties
childCategories	BrowsingCategoryStructure[]	N/A	Optional	Child category properties
id	String	N/A	Mandatory	Category ID

3.1.5 Response Sample

Charter - UXF - Rest Services - JSON examples -
<http://docloader/Docloader/docloader.aspx?action=view&docnum=2507194>

3.1.6 Sequence Diagram – N/A

3.1.7 Operation Synchronicity

Synchronous

3.1.8 Operation Type

Proxy

3.1.9 Related Services - N/A

3.1.10 Operation Specific Header Information

3.1.10.1 Request Header

Field Name	Valid Values	Data Type	Type	Mandatory/Optional	Description
username	N/A	String	Header	Mandatory	User name
password	N/A	String	Header	Mandatory	password
applicationId	N/A	String	Header	Mandatory	For example, Charter Gateway
transactionId	N/A	String	Header	Mandatory	A unique ID for a certain REST call
timeStamp	N/A	Date as Long	Header	Mandatory	The time the REST was called Expected Date as Long. see assumption #3
sc (sales channel)	CC	String	Query	Mandatory	Sales channel
lo(locale)	en_US	String	Query	Mandatory	Locale
bci	N/A	String	Query	Not in use	The Browsing Category ID
bcsi	N/A	String	Query	Not in use	The browsing category structure ID

3.1.11 Operation Specific Logging - N/A

3.1.12 Operation Specific Error Handling

#	Exception	Error Code	Description/Scenario
1	Unauthorized	401	Security issue
2	Forbidden	403	Security issue
3	BadRequest	400	The request could not be understood by the server
4	RequestTimeout	408	Request timed out.
5	PreconditionFailed	412	Re-Authentication Failed
6	NotFound	404	Resource Not Found
7	InternalServerError	500	Server encountered problem

3.1.12.1 Error Code Structure

3.1.12.2 ImplErrorInfo

Field Name	Data Type	Mandatory/Optional	Description
errorCode	String	Mandatory	Error code, single string.
description	String	Mandatory	A description of the error.

Field Name	Data Type	Mandatory/Optional	Description
errorMessage	String	Mandatory	Error message.
errorUUID	String	Mandatory	Unique number to identify the error.

3.1.12.3 Sample Error Code (401)

```
{  
  "implErrorInfo": {  
    "errorCode": "AuthorizationFailed",  
    "description": "You are not Authorized",  
    "errorMessage": "login of user {FAKE_USER} has failed: {status:4} {userStatus:0}  
    {error:User account is unknown or password is wrong}",  
    "errorUUID": "1a719fd5-01eb-4b78-ad9d-b80296bc548a"  
  }  
}
```

3.1.12.4 Possible Error Messages

#	Exception	Scenario	Error message
1	InternalServerError	General exception in the BE system for example mandatory input was not sent.	"InternalServerError"
2	BadRequest	If no category is returned.	"CategoryNotFound"

4 Open Issues – N/A

Appendix A. Fields derived from MEC

The valid values for the following fields are BPT values, defined in MEC.

Field Name	Data Type	section
Value	FilterFacetValue	3.1.4.8

Document Release Information

Every change made to the document following the initial delivery **MUST** be shown in detail in this table

Software Version	Editor/Author	Application	Edit Date [Mmm-dd-yyyy]	Section	Changes	Sent to site	Approving Manager	DC Ver.
			Jan-01-2014	Initial Version		N		00.00
	Jonathan Cohen	TechComm	Jun-14-2015	Initial TW review		N		
	Orit Sarfaty-Preisler	All	Jun-14-2015	Finalize		Y		1.0
	Tammy Shalev	REST	Jul-07-2015	3.1.4.8	Updated valid values to - BPT Values defined by MEC for this fields: -value	Y		1.7
	Orit Sarfaty Preisler		July-23-2015	ALL	Doc Signed off Accept all changes and promote to Major version.	Y		2.0
	Malki Sabag	REST	Jul-23-2015	3.1.4.1 3.1.4.2	Fixed typo error instead of category to correct word category.	N		2.1
	Tammy shalev	REST	Aug-04-2015	All	Added assumption for Date fields and updated description for all Date fields in the document	N		2.2
	Tammy shalev	REST	Aug-11-2015	3.1.10.1	Changed the valid value for the locale field	N		2.3
	Tom Sofer	REST	AUG-16-2015	3.1.4.2	Updated description column from Category ID to Category instance ID	N		2.4

Software Version	Editor/Author	Application	Edit Date [Mmm-dd-yyyy]	Section	Changes	Sent to site	Approving Manager	DC Ver.
	Tom Sofer	REST	AUG-17-2015	3.1	* Add "Description" parameter row in BrowsingCategory table. * Add link to Request and Response Sample sections which contains REST results samples.	N		2.5
	Harel Madar	REST	Aug-19-2015	3.1.4, 3.1.4.15	Removed ImplBaseResponse from response because the response extends it and not have it as field	N		2.6
	Tammy shalev	REST	Aug-20-2015	3.1.4	Added 3 base fields to the response and changed transactionId and timestamp to be Mandatory	N		2.7