Institution applications  
Structure of file and web-service

SmartVista Standard

February, 2018

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Overview

Change log

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Revision | Date | Author | | Details |
| 0.1 | 2018-02-06 | | A. Alalykin | The initial version | |
| 0.2 | 2018-02-21 | | I.Gerbeev | Two tags “inst\_id” and “institution\_agent\_id” were changed. | |
| 0.3 | 2018-03-23 | | Kolodkina Y. | Amended part of References. Added svap.wsdl. | |
| 0.4 | 2018-08-02 | | A. Alalykin | Support of flexible fields and notes | |

Purpose of this document

The document aims at describing contents and structure of APIs for the developers who carry out an integration that relates to the registration of institutions.

References

References to external documents

SVAP Web Services schema and its underlying components are required for SmartVista.  
The following are the locations of the WSDL and XSD files.

SVAP WSDL: svap.wsdl

SVAP XSD: svap\_institution.xsd

Example of xml document for different flow provided in file:

app\_flow.example.2302.xml

XML document structure

Introduction

An application to change the acquiring structure of a bank is an XML document that contains all the necessary information (customers, merchants, terminals, accounts, enabled/disabled services, etc.) to perform respective modifications. The application may be passed to the Smart Vista system either offline, as a file, or online — by means of a web service. A data structure is the same for both cases. A number of applications may be passed within a file at once. The APPLICATIONS root tag and its APPLICATION sub-tags are used for this purpose. As for a web service, a single application is passed per a request, that’s why the APPLICATION tag is the root one in such a case.

The same structure with additional fields is returned as a response to the application processing request. If processing is unsuccessful, these fields are error tags. An error tag is linked to the tag that caused the respective error on processing. If processing is successful, tags that contain auto-generated IDs (terminal number, account number, etc.) are added to the structure of an application.

If on-line validating and processing of application via a WEB service is unsuccessful, field <faultstring> in response contains human-readable description of error, block <detail> may contain field <details> with additional information for error clarification. Example of response is given in file svap\_error.example.xml

This document describes the full structure of an acquiring application, all tags are mentioned. However, the final structure of an application (set of mandatory tags) depends on a particular purpose of the application (see description of the APPLICATION\_FLOW\_ID tag).

Each tag of the COMPLEX type contains the ID attribute. It is a tag unique ID within the scope of an application. It is not a mandatory attribute. This attribute is used to link tags, if there is a need to refer from one tag to another. The REF\_ID attribute is used to refer to another tag of an application. Such a relationship may be used, for instance, when a merchant and a terminal (described by different tags) are linked with each other. If a complex tag should contain a value in addition to the child tags, the VALUE attribute is used to specify it.

It is necessary to set the language of contents for some text and complex tags. To do that the LANGUAGE attribute that should contain a value from the LANG dictionary is specified for such a tag. If a number of multilingual tags are needed to use then only one tag is added for each of languages.

List of tags

| Tag name | Data type | | Length | Is mandatory | | Description | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| application | | | | | | | | |
| application\_number | string | | 200 | 0-1 | | A unique number of applications generated by an external system. | | |
| application\_date | date | |  | 0-1 | | Date when an application was created via an external system. | | |
| application\_type | string | | 8 | 1-1 | | An application type. The ‘APTPINSA’ constant indicates the registration of acquiring structure. | | |
| application\_flow\_id | int | | 4 | 1-1 | | Describes a purpose of an application (creation of a new merchant or terminal, modification of personal data, etc.). It is selected by means of the drop-down box. | | |
| application\_status | string | | 8 | 1-1 | | An application status to assign to a newly created application. | | |
| operator\_id | string | | 200 | 0-1 | | A system name of a user who created the application. | | |
| institution\_id | int | | 4 | 1-1 | | An institution ID where an application is issued in. | | |
| customer\_type | string | | 8 | 0-1 | | A customer type: person or company. Values are taken from the dictionary. | | |
| flexible\_field | complex | |  | 0-\* | | Flexible fields associated with the application | | |
| note | complex | |  | 0-\* | | Notes associated with the application | | |
| institution | complex | |  | 1-1 | | Combines parameters that describe an institution. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| institution | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| inst\_id | int | | 4 | 1-1 | | Institution identifier/ | | |
| institution\_name | string | | 200 | 0-1 | | Institution name/ | | |
| institution\_type | string | | 8 | 0-1 | | Institution type. Dictionary INTP. | | |
| parent\_institution\_id | int | | 4 | 0-1 | | Parent institution identifier. | | |
| network\_id | int | | 4 | 0-1 | | Network associated with the institution. | | |
| agent | complex | |  | 0-\* | | Agent(s) under this institution. | | |
| customer | complex | |  | 0-1 | | Institution customer. | | |
| account | complex | |  | 0-\* | | Institution accounts (GL-accounts). | | |
| contact | complex | |  | 0-\* | | Institution contacts. | | |
| address | complex | |  | 0-\* | | Institution addresses. | | |
| flexible\_field | complex | |  | 0-\* | | Flexible fields associated with the institution | | |
| note | complex | |  | 0-\* | | Notes associated with the institution | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| institution | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| institution\_id | int | | 4 | 1-1 | | Institution identifier/ | | |
| institution\_name | string | | 200 | 0-1 | | Institution name/ | | |
| institution\_type | string | | 8 | 0-1 | | Institution type. Dictionary INTP. | | |
| parent\_institution\_id | int | | 4 | 0-1 | | Parent institution identifier. | | |
| network\_id | int | | 4 | 0-1 | | Network associated with the institution. | | |
| agent | complex | |  | 0-\* | | Agent(s) under this institution. | | |
| customer | complex | |  | 0-1 | | Institution customer. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| agent | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| Institution\_agent\_id | int | | 4 | 1-1 | | Agent identifier. | | |
| agent\_number | string | | 200 | 0-1 | | Agent number. | | |
| agent\_name | string | | 200 | 0-1 | | Agent name | | |
| agent\_type | string | | 8 | 0-1 | | Agent type. Dictionary AGTP. | | |
| parent\_agent\_id | int | | 4 | 0-1 | | Parent agent identifier. | | |
| is\_default | int | | 1 | 0-1 | | Flag of default agent for the institution. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| customer | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| customer\_number | string | | 200 | 0-1 | | An external ID of a customer. It must be unique in the scope of an institution. | | |
| customer\_category | string | | 8 | 0-1 | | A customer category: ordinary, privileged, VIP, etc. Values are taken from the dictionary. | | |
| customer\_relation | string | | 8 | 0-1 | | A type of relationship between a customer and a bank: affiliate, employee, insider, no relationship. Values are taken from the dictionary. | | |
| account\_scheme | int | | 4 | 0-1 | | An account scheme ID. Defines rules of performing the operations that associated with a merchant’s accounts.  This tag is required for flow #2001 (creation new acquiring customer). | | |
| contract | complex | |  | 1-\* | | Combines parameters that describe a contract. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| contract | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| contract\_type | string | | 8 | 0-1 | | Contract type, dictionary CNTP. Available value (article) is CNTPINST. | | |
| product\_id | int | | 8 | 0-1 | | A product ID that defines service terms for a contract. | | |
| contract\_number | string | | 200 | 0-1 | | A contract number. | | |
| start\_date | date | |  | 0-1 | | Start date of contract validity. | | |
| end\_date | date | |  | 0-1 | | End date of contract validity. | | |
| service | complex | |  | 0-\* | | A service provided by a bank (institution) with binding to an entity. For this application type service is associated with entity institution only. A value is specified via the VALUE attribute of the tag. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| contact | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| contact\_type | string | | 8 | 1-1 | | A purpose of a contact. Values are taken from the dictionary. | | |
| job\_title | string | | 8 | 0-1 | | A position of a contact person. Values are taken from the dictionary. | | |
| preferred\_lang | string | | 8 | 0-1 | | Preferred language of communication. | | |
| person | complex | |  | 0-1 | | A contact person. | | |
| contact\_data | complex | |  | 1-\* | | Contact information. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| person | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object | | | | |
| person\_title | string | | 8 | 0-1 | | A person title: Mr., Mrs., Miss, etc. Values are taken from the dictionary. | | | | |
| person\_name | complex | |  | 1-\* | | A person’s name. It may be presented in a number of languages. | | | | |
| suffix | string | | 8 | 0-1 | | A name suffix: Jr., Sr., etc. Values are taken from the dictionary. | | | | |
| birthday | date | |  | 0-1 | | Date of birth. | | | | |
| place\_of\_birth | string | | 200 | 0-1 | | Place of birth. | | | | |
| gender | string | | 8 | 0-1 | | A contact person’s gender. | | | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| person\_name | | | | | | | | |
| surname | string | | 200 | 1-1 | | A person’s surname. | | | | |
| first\_name | string | | 200 | 1-1 | | A person’s first name. | | | | |
| second\_name | string | | 200 | 0-1 | | A person’s second name. | | | | |
| contact\_data | | | | | | | | |
| commun\_method | string | | 8 | 1-1 | | A communication method. | | |
| commun\_address | string | | 200 | 1-1 | | A communication ID: phone number, email, Skype, etc. | | |
| start\_date | date | |  | 0-1 | | Start date | | |
| end\_date | date | |  | 0-1 | | End date | | |
| address | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| address\_type | string | | 8 | 1-1 | | A purpose of an address: Home address, Business address, Statement delivery address. Values are taken from the dictionary. | | |
| country | string | | 3 | 1-1 | | A numeric ISO country code. Values are taken from the dictionary. | | |
| address\_name | complex | |  | 1-1 | | Address parameters that may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display them in the proper language. | | |
| house | string | | 200 | 1-1 | | House number. | | |
| apartment | string | | 200 | 0-1 | | Apartment number. | | |
| postal\_code | string | | 10 | 0-1 | | Postal code. | | |
| place\_code | string | | 200 | 0-1 | | Place code. | | |
| region\_code | string | | 11 | 0-1 | | Region code | | |
| latitude | long | | 8 | 0-1 | | Location coordinates – latitude (N). | | |
| longitude | long | | 8 | 0-1 | | Location coordinates – longitude (W). | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing of the parent element. | | |
| address\_id | long | | 8 | 0-1 | | Address identificator | | |
| address\_name | | | | | | | | |
| region | string | | 200 | 0-1 | | Country region (region, state, republic). | | |
| city | string | | 200 | 1-1 | | City. | | |
| street | string | | 200 | 1-1 | | Street. | | |
| flexible\_field | | | | | | | | |
| flexible\_field\_name | string | | 200 | 1-1 | | Unique flexible field name | | |
| flexible\_field\_value | string | | 200 | 1-1 | | Flexible field value | | |
| note | | | | | | | | |
| note\_type | string | | 8 | 1-1 | | Note type:  NTTPUSER – user comment;  NTTPRSTR - Notes for registry of opened and closed accounts;  NTTPDLVR – Delivery notes;  NTTP5001 – Travel Notification. | | |
| note\_content | complex | |  | 1-\* | | Content of the note. Have attribute language. | | |
| note\_content | | | | | | | | |
| note\_header | string | | 4000 | 0-1 | | Header of the note | | |
| note\_text | string | | 4000 | 0-1 | | Text of the note | | |
| start\_date | date | |  | 0-1 | | Start date | | |
| end\_date | date | |  | 0-1 | | End date | | |
| service | | | | | | | | |
| service\_number | string | | 200 | 0-1 | | Service number | | |
| service\_object | complex | |  | 1-\* | | Contains a reference to an associated entity. For this type of application entity institution is only availabe. The reference to a respective tag is specified as a value of the REF\_ID attribute. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing of the parent element. | | |
| service\_object | | | | | | | | |
| start\_date | date | |  | 0-1 | | Service ‘valid from’ date. | | |
| end\_date | date | |  | 0-1 | | Service expiration date. | | |
| attribute\_num | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| attribute\_char | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| attribute\_date | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| attribute\_fee | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| attribute\_cycle | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| attribute\_limit | complex | |  | 0-\* | | Object related service terms that differ from the ones defined on a product level. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing of the parent element. | | |
| attribute\_num | | | | | | | | |
| attribute\_value\_num | int | | 22 | 1-1 | | An attribute value, if a service term is defined numerically. | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| mod\_condition | string | | 2000 | 0-1 | | Condition of modifier | | |
| mod\_name | string | | 200 | 0-1 | | Name of modifier | | |
| mod\_id | int | | 4 | 0-1 | | Identifier of modifier | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| attribute\_char | | | | | | | | |
| attribute\_value\_char | string | | 200 | 1-1 | | An attribute value in case a service term is defined as chars. | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| mod\_condition | | string | 2000 | | 0-1 | | | Condition of modifier | | |
| mod\_name | | string | 200 | | 0-1 | | | Name of modifier | | |
| mod\_id | | int | 4 | | 0-1 | | | Identifier of modifier | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| attribute\_date | | | | | | | | |
| attribute\_value\_date | date | |  | 1-1 | | An attribute value, if a service term is defined as date. | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| mod\_condition | | string | 2000 | | 0-1 | | | Condition of modifier | | |
| mod\_name | | string | 200 | | 0-1 | | | Name of modifier | | |
| mod\_id | | int | 4 | | 0-1 | | | Identifier of modifier | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| attribute\_fee | | | | | | | | |
| fee\_fixed\_value | long | | 22 | 0-1 | | A fixed rate. | | |
| currency | string | | 3 | 1-1 | | Fixed fee currency. | | |
| fee\_percent\_value | long | | 22 | 0-1 | | An interest rate. | | |
| fee\_rate\_calc | string | | 8 | 1-1 | | A calculation type. | | |
| fee\_base\_calc | string | | 8 | 1-1 | | Fee base calc algorithm | | |
| fee\_min\_value | long | | 22 | 0-1 | | Fee minimum value | | |
| fee\_max\_value | long | | 22 | 0-1 | | Fee maximum value | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| cycle\_length\_type | string | | 8 | 0-1 | | Time period unit. Value from dictionary LNGT. | | |
| mod\_condition | string | | 2000 | 0-1 | | | Condition of modifier | |
| mod\_name | string | | 200 | 0-1 | | | Name of modifier | |
| mod\_id | int | | 4 | 0-1 | | | Identifier of modifier | |
| Length\_type\_algorithm | string | | 8 | 0-1 | | | Algorithm for year length calculation. Dictionary NDYR. | |
| fee\_tier | complex | |  | 0-\* | | | Contains tiers of fee. | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| fee\_tier | | | | | | | | |
| sum\_threshold | long | | 22 | 1-1 | | Sum threshold | | |
| count\_threshold | int | | 4 | 1-1 | | Count threshold | | |
| fee\_fixed\_value | long | | 22 | 0-1 | | Fee fixed rate | | |
| fee\_percent\_value | long | | 22 | 0-1 | | Fee percent rate | | |
| fee\_min\_value | long | | 22 | 0-1 | | Fee minimum value | | |
| fee\_max\_value | long | | 22 | 0-1 | | Fee maximum value | | |
| attribute\_limit | | | | | | | | |
| limit\_sum\_value | long | | 22 | 0-1 | | A limit bound to use for amount. | | |
| currency | string | | 3 | 0-1 | | Currency of a limit bound. | | |
| limit\_count\_value | long | | 22 | 0-1 | | A limit bound to use for quantity | | |
| counter\_algorithm | string | | 8 | 0-1 | | Counter algorithm of the limit processing (value from ‘ACCL’ dictionary). | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| mod\_condition | | string | 2000 | | 0-1 | | | Condition of modifier | | |
| mod\_name | | string | 200 | | 0-1 | | | Name of modifier | | |
| mod\_id | | int | 4 | | 0-1 | | | Identifier of modifier | | |
| length\_type | | string | 8 | | 0-1 | | | A measuring unit of a time period. | | |
| cycle\_length | | int | 8 | | 0-1 | | | Number of time periods. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing the parent element. | | |
| attribute\_cycle | | | | | | | | |
| cycle\_length\_type | string | | 8 | 1-1 | | A measuring unit of a time period. | | |
| cycle\_length | int | | 8 | 1-1 | | Number of time periods. | | |
| shift | complex | |  | 0-\* | | Cycle shifts | | |
| cycle\_start\_date | date | |  | 0-1 | | Start date to begin cycle count. | | |
| start\_date | date | |  | 1-1 | | The ‘valid from’ date of an object related service term. | | |
| end\_date | date | |  | 0-1 | | Expiration date of an object related service term. | | |
| mod\_condition | | string | 2000 | | 0-1 | | | Condition of modifier | | |
| mod\_name | | string | 200 | | 0-1 | | | Name of modifier | | |
| mod\_id | | int | 4 | | 0-1 | | | Identifier of modifier | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing of the parent element. | | |
| **shift** | | | | | | | | |
| shift\_type | string | | 8 | 1-1 | | Type of cycle shit. Dictionary value. | | |
| shift\_priority | int | | 4 | 1-1 | | Priority of shift when cycle has multiple shifts | | |
| shift\_sign | int | | 1 | 1-1 | | 1 – forwards shift  -1 – backward shift | | |
| shift\_length\_type | string | | 8 | 0-1 | | Type of shift length period. Use only with ***shift\_type = CSHTPERD*** – shift by period. | | |
| shift\_length | int | | 4 | 1-1 | | Shift value | | |
| account | | | | | | | | |
| command | string | | 8 | 1-1 | | An action to perform over an object. | | |
| account\_number | string | | 200 | 0-1 | | An account number. | | |
| currency | string | | 3 | 0-1 | | Account currency. | | |
| account\_type | string | | 8 | 0-1 | | An account type: Default, Savings, Credit, etc. Values are taken from the dictionary. | | |
| account\_status | string | | 8 | 0-1 | | An account status. | | |
| error | complex | |  | 0-1 | | Contains the details for an error that occurred on processing of the parent element. | | |
| error | | | | | | | | | |
| error\_code | string | | 200 | 1-1 | | | Error code | |
| error\_desc | string | | 2000 | 1-1 | | | Description | |
| error\_element | string | | 200 | 1-1 | | | XML tag of error origin | |
| error\_details | string | | 2000 | 0-1 | | | Additional information | |

APPLICATIONS

It is used as the root tag, if an application is passed within a file. It may include a number of applications (the APPLICATION tag).

APPLICATION

It contains a single complete application. The tag is the root one, if an application is passed online via a web-service.

APPLICATION\_NUMBER

It is a unique external ID of an application. It serves to synchronize applications between SmartVista and an external system, which is used to form them.

APPLICATION\_DATE

Date of forming an application by means of an external system.

APPLICATION\_TYPE

It defines both an application structure and a processor, which is called to create objects in the system on the basis of the application structure.

| Code | Description |
| --- | --- |
| APTPINSA | Institution application. |

APPLICATION\_STATUS

A status of the created application. The status defines whether the application will be processed once it is loaded or an additional verification by the operator is required.

| Code | Description |
| --- | --- |
| APST0001 | Just created |
| APST0002 | Awaiting confirmation |
| APST0006 | Awaiting processing |
| APST0007 | Processed successfully |
| APST0008 | Processing failed |

APPLICATION\_FLOW\_ID

It is an ID of an application business flow. The ID is used to create an application and defines the final structure of tags (set of mandatory fields, default values, etc.). Thus, it describes a purpose of the application that is an action to perform once the application is processed.

| Code | Description |
| --- | --- |
| 2301 | Default institution application |
| 2302 | Create new institution |

OPERATOR\_ID

A system name (ID) of a user who created an application. It is used as an additional description only for audit purposes.

INSTITUTION\_ID

An ID of an institution an application belongs to.

CUSTOMER\_TYPE

An individual or incorporated person. A value of the tag defines the application structure. Depending on the value, it is necessary to fill in the information either of a company or person. Only an incorporated person is used for acquiring applications.

| Code | Description |
| --- | --- |
| ENTTCOMP | Company |

COMMAND

It describes an action to perform over an object of the current parent tag. The action depends on whether the object exists in the system or not. Each command defines an action for both cases (found or not found). Verification for the object existence is made by various parameters (it is unique IDs of objects mainly). The list of actions is fixed and defined in the dictionary.

| Code | Description |
| --- | --- |
| CMMDCREX | Create or except |
| CMMDCRPR | Create or proceed |
| CMMDCRUP | Create or update |
| CMMDEXPR | Except or proceed |
| CMMDEXRE | Except or remove |
| CMMDEXUP | Except or update |
| CMMDIGNR | |  |  | | --- | --- | |  | Ignore | |

INSTITUTION

A complex tag that contains the institution related parameters.

AGENT

A complex tag that contains the agent related parameters.

CUSTOMER

A complex tag that contains the customer related parameters.

CUSTOMER\_NUMBER

A unique ID of a customer in the scope of an institution. It is an optional field. If the tag is empty then a customer number will be generated automatically according to the respective naming format adjusted in SmartVista and returned in a response to the application processing request. The tag is used to synchronize customers between SmartVista and an external system. The number is used to identify a customer, if an application to update the existing customer is created.

CUSTOMER\_CATEGORY

It defines a customer’s class of service, that is either he is an ordinary or privileged customer. The set of the tag values is defined in the expandable dictionary.

| Code | Description |
| --- | --- |
| CCTGORDN | Ordinary customer |
| CCTGPRVG | |  |  | | --- | --- | |  | Privileged customer | |

CUSTOMER\_RELATION

It defines how a customer relates to a bank: affiliate, insider, employee, etc. The set of the tag values is defined in the expandable dictionary.

| Code | Description |
| --- | --- |
| RSCBAFLT | |  |  | | --- | --- | |  | Affiliate | |
| RSCBEMPL | Employee |
| RSCBEXTR | External |
| RSCBINSD | Insider |

CONTRACT

It is a complex tag that contains the contract related parameters.

CONTRACT\_TYPE

It defines a business area where a bank and its customer interact. A value is defined in the expandable dictionary. The list of available contract types is limited by a chosen customer type.

| Code | Description |
| --- | --- |
| CNTPINST | Institution servicing |

PRODUCT\_ID

An ID of a product in the SmartVista system. It defines a product used by a contact. The list of products is limited by a contract type. It is an optional field, if the contract already exists.

CONTRACT\_NUMBER

It is an optional parameter. If a contract number is not specified in an application explicitly, it may be generated automatically according to a naming format adjusted in SmartVista. The generated number is returned in a response to the application processing request. The number will be used to identify a contract and must be unique in the scope of an institution.

START\_DATE

Start date a contract is valid from. If date is not specified explicitly, application processing date is used.

END\_DATE

Expiration date of a contract. If not specified, a contract is meant to be permanent. Date may be specified later on in an application for contract modification.

CONTACT

It is a complex tag that contains parameters of the customer’s contact information. It may be specified as a child of the CUSTOMER and CARDHOLDER tags. Thus, it defines contact information of a customer and a cardholder respectively. In turn, the tag may contain the PERSON and ADDRESS child tags to describe a contact in more details (name of a contact person, his/her postal address).

CONTACT\_TYPE

This either defines a purpose of a contact (sending the notifications, account delivery) or just describes it (home or business). Values are defined in the expandable dictionary.

| Code | Description |
| --- | --- |
| CNTTCEOC | Chief Executive Officer contact |
| CNTTCFEO | |  |  | | --- | --- | |  | Chief Financial Officer contact | |
| CNTTPRMC | Primary contact |
| CNTTSCNC | Secondary contact |

PREFERRED\_LANG

Preferred language for communication. It is used to form notification messages in the desirable language or just as supplemental information.

| Code | Description |
| --- | --- |
| LANGENG | English |
| LANGRUS | Russian |

JOB\_TITLE

A position of a contact person. It is used for an incorporated person only. Both the contact person’s position (director, chief accountant, etc.) and department title (accounting, sales) may be used as values of the tag.

The PERSON tag may be used additionally to specify the contact person’s full name.

| Code | Description |
| --- | --- |
| JTTLDRCT | Director |
| JTTLHDDP | Head of department |
| JTTLMNGR | |  |  | | --- | --- | |  | Manager | |
| JTTLOFMN | Office manager |
| JTTLCHFA | Chief accountant |
| JTTLACNT | Accounter |

CONTACT\_DATA

It is a complex tag that contains parameters of communication.

COMMUN\_METHOD

A communication method. It defines a method to communicate with a customer by.

| Code | Description |
| --- | --- |
| CMNM0001 | Mobile phone |
| CMNM0002 | E-mail |
| CMNM0003 | Post |
| CMNM0004 | Fax |
| CMNM0005 | Skype |
| CMNM0006 | AOL Aim |
| CMNM0007 | Windows Live Messenger |
| CMNM0008 | ICQ Corp |
| CMNM0009 | Yahoo! Messenger |
| CMNM0010 | Jabber |
| CMNM0011 | Telex |
| CMNM0012 | Landline phone |

COMMUN\_ADDRESS

An ID to use for communication with a person by a chosen method (phone number, E-mail address, postal address, etc.)

START\_DATE

Starting date of validity of contact data.

END\_DATE

Ending date of validity of contact data.

ADDRESS

It is a complex tag that contains parameters of postal address.

ADDRESS\_TYPE

It describes a purpose of address. Values are defined in the expandable dictionary.

| Code | Description |
| --- | --- |
| ADTPBSNA | Business address |
| ADTPHOME | Home address |
| ADTPLGLA | Legal address |
| ADTPSTDL | Statement delivery address |

COUNTRY

A numeric ISO code of a country.

ADDRESS\_NAME

It is a complex and multilingual tag that contains parameters of address in various languages. A number of such tags may be used in the scope of the same address in various languages. The LANGUAGE attribute must be specified for this tag with possible values:

| Code | Description |
| --- | --- |
| LANGENG | English |
| LANGRUS | Russian |

REGION

A name of a region in address (state, region, country, republic, etc.). The language specified as an attribute of the ADDRESS\_NAME parent tag is used.

CITY

A name of a city. The language specified as an attribute of the ADDRESS\_NAME parent tag is used.

STREET

A name of a street. The language specified as an attribute of the ADDRESS\_NAME parent tag is used.

HOUSE

A number of a house.

APARTMENT

A number of an apartment.

POSTAL\_CODE

Postal code.

PLACE\_CODE

Place code.

REGION\_CODE

A region code or address classification code.

ADDRESS\_ID

Address identificator. Use only for upload. This tag ignored in incoming file.

**FLEXIBLE\_FIELD**

It describes a flexible field (system name and value) associated with entity type of parent block. For example, if block *flexible\_field* locates in block *institution*, a flexible field value will be intended for some entity *institution* that is described by this block.

FLEXIBLE\_FIELD\_NAME

Unique flexible field name (system name).

FLEXIBLE\_FIELD\_VALUE

Flexible field value.

**NOTE**

It describes a note associated with entity type of parent block. For example, if block *note* locates in block *institution*, note value will be intended for some entity *institution* that is described by this block.

NOTE\_TYPE

This element contains type of note.

|  |  |
| --- | --- |
| **Code** | **Description** |
| NTTPUSER | User comment |
| NTTPRSTR | Notes for registry of opened and closed accounts |
| NTTPDLVR | Delivery notes |

NOTE\_CONTENT

It is a block with content of the note.

**NOTE\_CONTENT**

It contains content of note block.

NOTE\_HEADER

Header of the note.

NOTE\_TEXT

Text of the note.

START\_DATE

Starting date of note content data.

END\_DATE

Ending date of note content data.

SERVICE

The tag related to a service which has been pre-configured in the system earlier. It must contain an ID of the service. The service ID is specified in the VALUE attribute of the tag.

SERVICE\_OBJECT

The tag describes relationship between a service that has been specified in the SERVICE tag and a business-object of the SmartVista system such as customer, account, merchant, and terminal. To link an object with a service, it is necessary to specify an ID of the block where the respective object is described in the REF\_ID attribute of the tag.

If an associated service should be connected to an object, the tag is added to the object inside its parent tag.

START\_DATE

The valid from date of a service related to an object.

END\_DATE

Expiration date of a service related to an object.

ATTRIBUTE\_NUM

The tag that contains a service term of numeric type. It is used, if a service term defined via an attribute that has the value other than the one set in product should be specified. The object has a unique service term in this case. An ID of the service term registered in the system is specified in the VALUE attribute.

ATTRIBUTE\_VALUE\_NUM

The tag that contains a numeric value for the attribute of the corresponding type. The value is used as a unique parameter of a business object.

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

MOD\_CONDITION

Condition of modifier should be used for find and create modifier.

MOD\_NAME

Name of new modifier should be used to create new modifier only.

MOD\_ID

Identifier of existence modifier. Error should be raised if there are no modifier with this id, or modifier has different scale.

ATTRIBUTE\_CHAR

The tag that contains a service term of char type. It is used, if a service term defined via an attribute that has the value other than the one set in product should be specified. The object has a unique service term in this case. An ID of the service term registered in the system is specified in the VALUE attribute.

ATTRIBUTE\_VALUE\_CHAR

The tag that contains a char value for the attribute of the corresponding type. The value is used as a unique parameter of the business object.

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

MOD\_CONDITION

Condition of modifier should be used for find and create modifier.

MOD\_NAME

Name of new modifier should be used to create new modifier only.

MOD\_ID

Identifier of existence modifier. Error should be raised if there are no modifier with this id, or modifier has different scale.

ATTRIBUTE\_DATE

The tag that contains a service term of date type. It is used, if a service term defined via an attribute that has the value other than the one set in product should be specified. The object has a unique service term in this case. An ID of the service term registered in the system is specified in the VALUE attribute.

ATTRIBUTE\_VALUE\_DATE

The tag that contains a date value for the attribute of the corresponding type. The value is used as a unique parameter of the business object.

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

ATTRIBUTE\_FEE

The tag that contains a service term used as a fee (algorithm to calculate a fee). It is used, if a service term defined via an attribute that has the value other than the one set in product should be specified. The object has a unique service term in this case. An ID of the service term registered in the system is specified in the VALUE attribute.

FEE\_FIXED\_VALUE

The tag that contains a numeric value of the attribute. It defines a fixed rate to use for fee amount calculation.

CURRENCY

A currency code of the fixed rate.

FEE\_PERCENT\_VALUE

The tag that contains a numeric value of the attribute. It defines an interest rate to use for fee amount calculation.

FEE\_RATE\_CALC

An algorithm to calculate a fee on the basis of either a fixed or an interest rate. The list of algorithms is predefined in the dictionary. Available values are: Fixed value, Percentage value, Minimum between percent and fixed value, Maximum between percent and fixed value, Sum of percent and fixed values.

FEE\_BASE\_CALC

Fee parameter describing how is base calculating.

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

CYCLE\_LENGTH\_TYPE

Cycle length type (time interval unit): year, month, week, day, hour. The value is determined by the Dictionary value.

| Code | Description |
| --- | --- |
| LNGT0001 | Hour |
| LNGT0002 | Day |
| LNGT0003 | Week |
| LNGT0004 | Month |
| LNGT0005 | Year |

MOD\_CONDITION

Condition of modifier should be used for find and create modifier.

MOD\_NAME

Name of new modifier should be used to create new modifier only.

MOD\_ID

Identifier of existence modifier. Error should be raised if there are no modifier with this id, or modifier has different scale.

LENGTH\_TYPE\_ALGORITHM

Number days in year for fee calculating. Dictionary value:

| Code | Description |
| --- | --- |
| NDYR0001 | 360 days |
| NDYR0002 | 365 days |
| NDYR0003 | The actual quantity |

FEE\_TIER

This tag contains tiers of fee.

SUM\_THRESHOLD

This is the sum of threshold.

COUNT\_THRESHOLD

This is the Count of threshold.

FEE\_FIXED\_RATE

This is the value of fixed rate of fee.

FEE\_PERCENT\_RATE

This is the value of percent rate of fee.

FEE\_MIN\_VALUE

This is the minimum value of of fee.

FEE\_MAX\_VALUE

This is the maximum value of fee.

CYCLE

This tag contains cycle of fee.

CYCLE\_START\_DATE

Cycle start date. If no date is specified, then the cycle will be calculated from the date of the application processing.

CYCLE\_LENGTH\_TYPE

Cycle length type (time interval unit): year, month, week, day, hour. The value is determined by the Dictionary value.

| Code | Description |
| --- | --- |
| LNGT0001 | Hour |
| LNGT0002 | Day |
| LNGT0003 | Week |
| LNGT0004 | Month |
| LNGT0005 | Year |

CYCLE\_LENGTH

Cycle length (number of (time interval unit).

CYCLE\_WORKDAYS\_ONLY

Flag calculation cycle in working days. 1 – calculation cycle only on working days, 0 – calculation cycle every day.

ATTRIBUTE\_LIMIT

The tag that contains a service term used as a limit. An ID of the service term registered in the system is specified in the VALUE attribute.

LIMIT\_SUM\_VALUE

The upper bound of a limit on amount. Value “-1” implies there is no limit.

CURRENCY

A currency code of the limit upper bound on amount.

LIMIT\_COUNT\_VALUE

The upper bound of a limit on quantity.

COUNTER\_ALGORITHM

Counter algorithm of the limit processing (value from ‘ACCL’ dictionary).

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

MOD\_CONDITION

Condition of modifier should be used for find and create modifier.

MOD\_NAME

Name of new modifier should be used to create new modifier only.

MOD\_ID

Identifier of existence modifier. Error should be raised if there are no modifier with this id, or modifier has different scale.

LENGTH\_TYPE

Length type of cycle for limit

CYCLE\_LENGTH

Cycle length of cycle for limit

ATTRIBUTE\_CYCLE

The tag that contains a service term used as a cycle. An ID of the service term registered in the system is specified in the VALUE attribute.

CYCLE\_LENGTH\_TYPE

A measure unit of a time period: year, month, week, day, hour. The list of values is defined in the dictionary.

CYCLE\_LENGTH

Number of time periods.

SHIFT

Block encapsulates all parameters for cycle shift.

CYCLE\_START\_DATE

Start date to begin cycle count. If date is not specified, cycle count starts from the date when an application was processed.

START\_DATE

The valid from date of a service term value.

END\_DATE

Expiration date of a service term value.

MOD\_CONDITION

Condition of modifier should be used for find and create modifier.

MOD\_NAME

Name of new modifier should be used to create new modifier only.

MOD\_ID

Identifier of existence modifier. Error should be raised if there are no modifier with this id, or modifier has different scale.

**SHIFT**

Block encapsulates all parameters for cycle shift. Cycle can have more than one shift, it’s will be calculated in shift\_priority order.

SHIFT\_TYPE

Type of cycle shift

| Code | Description |
| --- | --- |
| CSHTENDM | End of month |
| CSHTMDAY | Shift to exact day of month |
| CSHTPERD | Shift by period |
| CSHTWDAY | Shift to exact day of week |
| CSHTWRKD | Shift to certain workday |

SHIFT\_PRIORITY

Priority to calculate cycle shift when cycle has more than one shift

SHIFT\_SIGN

Forward (1) or backward (-1) shift

SHIFT\_LENGTH\_TYPE

Type of length of period for cycle with shift by period type

| Code | Description |
| --- | --- |
| LNGT0001 | Hour |
| LNGT0002 | Day |
| LNGT0003 | Week |
| LNGT0004 | Month |
| LNGT0005 | Year |
| LNGT0006 | Minute |
| LNGT0007 | Second |

SHIFT\_LENGTH

Length of shift

ACCOUNT

It is a complex tag. It combines all parameters of an account. It is mandatory for application flow 2018 - Change acquiring account status.

ACCOUNT\_TYPE

It defines a business area of an account. The list of values is defined in the expandable dictionary ACTP.

CURRENCY

A currency code of an account. It is a three digit ISO code.

ACCOUNT\_STATUS

A status to use for a newly created account or shift the existing one to. The list of values is defined in the expandable dictionary:

| Code | Description |
| --- | --- |
| ACSTACTV | Active |
| ACSTCLSD | Closed |
| ACSTCRED | Credits only |
| ACSTPEND | Pending |

ERROR

ERROR\_CODE

Symbolic error code.

ERROR\_DESC

Human-readable description of error.

ERROR\_ELEMENT

XML tag being processed when error was raised.

ERROR\_DETAILS

Additional parameters and values for error clarification. Each type of error may use different set of parameters.

|  |  |
| --- | --- |
| Code | Description |
| ACCOUNT\_TYPE\_NOT\_DEFINED | Account type is not defined. |