SMARTVISTA EXCHANGE PROTOCOL WITH FRONT END (SVXP FE)

API developer reference

December 27, 2017

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1. PREFACE
   1. Revision history

| Revision | Date | Author | Details |
| --- | --- | --- | --- |
| 0.1 | 09.08.2012 | Khougaev A. | Accounts and customers file structure. Initial version |
| 0.2 | 09.08.2012 | Khougaev A. | Clearing file structure. Initial version |
| 0.3 | 10.08.2012 | Filimonov A. | Clearing file structure. Added operation and payment order attributes |
| 0.4 | 20.09.2012 | Filimonov A. | Clearing file structure. Added payment order parameters |
| 0.5 | 06.11.2012 | Filimonov A. | Accounts and customers file structure. Added accounts and customers SVXP specification document |
| 0.6 | 12.03.2013 | Filiminov A. | Currency rates file structure. First version of document |
| 0.7 | 13.03.2013 | Filiminov A. | Currency rates file structure. Added currency rate exchange specification |
| 0.8 | 14.03.2013 | Filimonov A. | Card security data transmission file structure. Initial version |
| 0.9 | 14.03.2013 | Filimonov A. | Card status file structure. First version of document |
| 1.0 | 12.04.2013 | Filimonov A. | Credit migration file structure. The document was created |
| 1.1 | 03.06.2013 | Kopachev D. | Currency rates file structure. The Scale element type corrected. The rate type added |
| 1.2 | 07.06.2013 | Necheukhin I. | Clearing file structure. Aggregator and service provider participants were added, oper\_reason, oper\_request\_amount and status tags were added |
| 1.3 | 10.06.2013 | Necheukhin I. | Clearing file structure. Extended clearing <in> format with is\_reversal mandatory tag |
| 1.4 | 14.06.2013 | Necheukhin I. | Clearing file structure. Operation tags has been added |
| 1.5 | 18.06.2013 | Necheukhin I. | Fees file structure. First version of document |
| 1.6 | 19.06.2013 | Necheukhin I. | Clearing file structure. Added tag payment\_amount |
| 1.7 | 19.06.2013 | Necheukhin I. | Fees file structure. Fee import specification has been simplified |
| 1.8 | 21.06.2013 | Necheukhin I. | Card security data transmission file structure. Corrected block card\_status |
| 1.9 | 21.06.2013 | Necheukhin I. | Card status file structure. Corrected block card\_status |
| 2.0 | 28.06.2013 | Necheukhin I. | Clearing file structure. Tags oper\_surcharge\_amount and oper\_cashback\_amount were added in block operation |
| 2.1 | 02.07.2013 | Necheukhin I. | Fees file structure. Adding modifiers in fee\_record block |
| 2.2 | 03.07.2013 | Necheukhin I. | Fees file structure. Block fee has been corrected and and block tier has been added |
| 2.3 | 04.07.2013 | Necheukhin I. | Fees file structure. Blocks fee and fee\_record have been modified |
| 2.4 | 06.08.2013 | Necheukhin I. | Clearing file structure. Block operation has been corrected |
| 2.5 | 14.08.2013 | Necheukhin I. | Clearing file structure. Tag purpose\_number has been added to block payment\_order |
| 2.6 | 14.08.2013 | Necheukhin I. | Fees file structure. Block fee\_record has been modified (added purpose\_id processing) |
| 2.7 | 29.08.2013 | Necheukhin I. | Fees file structure. Element merchant\_number has been renamed into customer\_number |
| 2.8 | 26.09.2013 | Filimonov A. | Clearing file structure. Added new dictionary values |
| 2.9 | 02.10.2013 | Necheukhin I. | Clearing file structure. Tag participant\_type has been added to block payment\_order |
| 3.0 | 22.10.2013 | Mashonkin V. | Notifications file structure. Initial version |
| 3.1 | 01.11.2013 | Mashonkin V. | Account credit statement interface. Initial version |
| 3.2 | 09.01.2014 | Filimonov A. | Credit migration file structure. The description of payments was added |
| 3.3 | 10.01.2014 | Filimonov A. | Credit migration file structure. Block dept has been corrected |
| 3.4 | 11.01.2014 | Rashin G. | Credit migration file structure. The document was translated |
| 3.5 | 13.01.2014 | Rashin G. | Credit migration file structure. Tag is\_grace\_enable has been moved from block dept\_interest to block dept |
| 3.6 | 27.01.2014 | Rashin G. | Clearing file structure. Custom participant added |
| 3.7 | 31.01.2014 | Kolodkina Y. | Account credit statement interface. Added fields currency\_name, oper\_type\_interest, total\_expence, overdue and overdue\_interest |
| 3.8 | 11.02.2014 | Necheukhin I. | Clearing file structure. Notes added |
| 3.9 | 20.02.2014 | Mashonkin V. | Account credit statement interface. Corrected dimension of field account\_number |
| 4.0 | 20.02.2014 | Necheukhin I. | Product migration file structure. First version of document |
| 4.1 | 21.02.2014 | Mashonkin V. | Account credit statement interface. Corrected Account, Contract, and Operation blocks |
| 4.2 | 24.02.2014 | Necheukhin I. | Product migration file structure. Element attribute has been renamed to attribute\_value; mod\_id has been added |
| 4.3 | 25.02.2014 | Necheukhin I. | Clearing file structure. Tag notes\_content has been modified and tag oper\_count has been added |
| 4.4 | 25.02.2014 | Necheukhin I. | Product migration file structure. Cycle shift has been added |
| 4.5 | 26.02.2014 | Mashonkin V. | Clearing file structure. Added data to operation about Authorization(auth\_data), MasterCard financial message(ipm\_data), VISA financial message(baseII\_data) |
| 4.6 | 04.03.2014 | Necheukhin I. | Product migration file structure. Removed cycle\_start\_date |
| 4.7 | 06.03.2014 | Necheukhin I. | Cards information interface. Initial version |
| 4.8 | 07.03.2014 | Necheukhin I. | Cards information interface Change person name occurs from 1-\* to 1-1 |
| 4.9 | 17.03.2014 | Necheukhin I. | Product migration file structure. Limit\_check\_type added. |
| 5.0 | 19.03.2014 | Necheukhin I. | Product migration file structure. Command has been added to product\_service, fee\_base\_calc now mandatory |
| 5.1 | 21.03.2014 | Necheukhin I. | Cards information interface. Adding tags for cards instances, adding block preceding\_instance for card history |
| 5.2 | 24.03.2014 | Necheukhin I. | Accounts and customers interface file structure. Credit block has been added to account block. Balance block and customer block are not mandatory now. |
| 5.3 | 25.03.2014 | Necheukhin I. | Accounts and customers interface file structure. unpaid\_percent\_amount has been renamed to unpaid\_interest\_amount |
| 5.4 | 26.03.2014 | Kolodkina Y. | File structure black list of cards. Added block. |
| 5.5 | 26.03.2014 | Necheukhin I. | Accounts and customers interface file structure. account\_type and account\_status are optional now |
| 5.6 | 27.03.2014 | Alalykin A. | Card security data transmission file structure. Block «card» has been changed. |
| 5.7 | 31.03.2014 | Kolodkina Y. | Credit migration file structure. Added new tags into invoice. |
| 5.8 | 23.04.2014 | Kolodkina Y. | Credit migration file structure. Added example of interest fee. |
| 5.9 | 23.04.2014 | Alalykin A. | Clearing file structure. Some divergences between specification and XSD-scheme have been corrected. |
| 6.0 | 28.04.2014 | Alalykin A. | Clearing file structure. Some missed descriptions of dictionary articles have been added. |
| 6.1 | 28.04.2014 | Necheukhin.I. | Product migration file structure. Field “length\_type\_algorithm” has been added to fee tier block |
| 6.2 | 06.05.2014 | Alalykin A. | Clearing file structure. Description for tag file\_type has been corrected. |
| 6.3 | 16.05.2014 | Kolodkina Y. | Credit migration file structure. Added the tag additional\_interest\_rate.  Renamed tag interest\_fee into interest\_rate. |
| 6.4 | 23.05.2014 | Alalykin A. | Clearing file structure. Description for tag oper\_reason has been modified. |
| 6.5 | 30.05.2014 | Alalykin A. | Product migration file structure. Description for tag limit\_base has been corrected. |
| 6.6 | 04.06.2014 | Kolodkina Y. | Clearing file structure.  Added comment about oper\_count value. |
| 6.7 | 06.06.2014 | Kolodkina Y. | Card security data transmission file structure. Added element state into block card. |
| 6.8 | 19.06.2014 | Alalykin A. | Card security data transmission file structure. Description for tag *state* has been extended. |
| 6.9 | 27.06.2014 | Alalykin A. | Clearing file structure. New article (dictionary STTT) has been added to list for tag sttl\_type. |
| 6.10 | 27.06.2014 | Maslov I. | Add Settlement amount and reconciliation type to clearing file |
| 6.11 | 23.07.2014 | Maslov I. | Clearing file structure. Add tag “auth\_tag” |
| 6.12 | 07.08.2014 | Maslov I. | Add link to xsd and xml. Fixed description of account file |
| 6.13 | 15.08.2014 | Maslov I. | Fixed “account credit statement” and “notifications” |
| 6.14 | 15.08.2014 | Maslov I. | Fixed field sttl\_type, auth\_char\_ind and pos\_terminal\_cap |
| 6.15 | 25.08.2014 | Necheukhin I. | Adding status\_reason for CARD STATUS file |
| 6.16 | 31.10.2014 | Alalykin A. | Cards information interface. Block of cardholder’s post address has been added. |
| 6.17 | 11.11.2014 | Alalykin A. | Cards information interface. Block card\_info has been extended. |
| 6.18 | 17.11.2014 | Kolodkina Y. | Accounts and customers interface file. Added field aval\_balance into block of account. Added block limits into block of account. |
| 6.19 | 19.11.2014 | Alalykin A. | Cards information interface. Block limits has been added into block card\_info. |
| 6.20 | 27.06.2014 | Alalykin A. | Clearing file structure. Tag de055 data type changed to base64Hex. |
| 6.21 | 09.12.2014 | Maslov I. | Add tag “tag name” to auth\_tag block |
| 7.0 | 11.12.2014 | Maslov I. | Add new Structure: BIN, Settlement and Update operation |
| 7.1 | 24.12.2014 | Maslov I. | Add match\_staus for opeartion |
| 7.2 | 13.02.2014 | Alalykin A. | Cards information interface. Tag product\_number added to block card\_info. |
| 7.3 | 20.02.2014 | Maslov I. | Add filed to clearing format |
| 7.4 | 27.02.2015 | Maslov I. | Add additional field for BIN |
| 7.5 | 04.03.2015 | Maslov I. | Add additional field for Visa BIN |
| 7.6 | 27.03.2015 | Alalykin A. | Cards information interface. Tag pin\_update\_flag added to block card\_info. |
| 7.7 | 31.03.2015 | Kolodkina Y. | Cards information interface. Tags is\_pos\_default, is\_atm\_default added to block account. |
| 7.8 | 07.04.2015 | Alalykin A. | Clearing file structure. List of dictionary values for tag client\_id\_type extended with article CITPCRID (identification by card’s internal identifier). |
| 7.9 | 13.04.2015 | Alalykin A. | Account credit statement file structure. Misprint corrected. |
| 7.10 | 14.04.2015 | Kolodkina Y. | Cards information interface. Added account type ACTPLOYT. |
| 7.11 | 16.04.2015 | Kolodkina Y. | Clearing file structure. Added field ‘system\_trace\_audit\_number’. |
| 7.12 | 25.05.2015 | Kolodkina Y. | Clearing file structure. Added description for tags start\_date, end\_date, oper\_date, host\_date, oper\_count. |
| 7.13 | 25.05.2015 | Alalykin A. | Clearing file structure. Tag sttl\_type was made optional so far as it can be calculated. |
| 7.14 | 18.06.2015 | Filimonov A. | Added new tags in Clearing:  participant/card\_id,  participant/card\_instance\_id,  transaction/conversion\_rate,  transaction/amount\_purpose,  account/agent\_number.  Added new tags in Card statuses:  change\_id, result\_code, error\_code.  Added new tags in Currency rates:  result\_code, error\_code. |
| 7.15 | 23.06.2015 | Kolodkina Y. | Clearing file structure. Added field transaction\_id into tag auth\_data. |
| 7.16 | 01.07.2015 | Kolodkina Y. | Product migration file structure. Added tags product\_account\_type and product\_card\_type. |
| 7.17 | 01.07.2015 | Kondratyev A. | Description of product migration file structure. Added description tag language in product\_name tag. |
| 7.18 | 08.07.2015 | Gaidarly A. | Cards information interface. Added ‘personalization\_info’, ‘company\_name’, ‘service\_code’ tags. |
| 7.19 | 08.07.2015 | Gaidarly A. | Card security data transmission file structure. Added ‘cardholder\_name’, ‘company\_name’, ‘personalization\_info’ tags. |
| 7.20 | 14.07.2015 | Kolodkina Y. | Product migration file structure. Set min\_count, max\_count mandatory. |
| 7.21 | 14.07.2015 | Kolodkina Y. | Product migration file structure. Added element ‘definition\_level’ into ‘attribute\_value’. |
| 7.22 | 21.07.2015 | Alalykin A. | Clearing file structure. A new tag additional\_amount added. |
| 7.23 | 21.07.2015 | Kolodkina Y. | Product migration file structure. Added elements: ‘entity\_type’, ‘object\_id’, ‘object\_number’ into element ‘attribute\_value’. |
| 7.24 | 23.07.2015 | Kolodkina Y. | Clearing file structure. Added fields external\_auth\_id, external\_orig\_id into tag auth\_data. |
| 7.25 | 30.07.2015 | Kolodkina Y. | Clearing file structure. Structure of response file added. |
| 7.26 | 12.08.2015 | Alalykin A. | Clearing file structure. New tag agent\_unique\_id added to auth\_data. |
| 7.27 | 27.08.2015 | Sebua D. | Clearing file structure. In baseII\_data added fields: sttl\_service, sre\_id, up\_sre\_id, jurisdict, routing, src\_region, dst\_region, src\_country, dst\_country, bus\_tr\_type, first\_count. In ipm\_data added fields: p0302, p0368. |
| 7.28 | 01.09.2015 | Kolodkina Y. | Cards information interface. Added tag ‘notification’ |
| 7.29 | 01.09.2015 | Kolodkina Y. | Accounts and customers interface file structure. Added tag ‘payment’ |
| 7.30 | 07.10.2015 | Kolodkina Y. | Added tag ‘native\_resp\_code’ into tag auth\_data. |
| 7.31 | 29.10.2015 | Kolodkina Y. | Added article ‘OPST0404’ into description of ‘OPST’ dictionary. |
| 7.32 | 03.11.2015 | Kolodkina Y. | Accounts and customers interface file structure. Added tag ‘inst\_id’. |
| 7.33 | 16.11.2015 | Kolodkina Y. | Cards information interface. Added tag ‘category’ |
| 7.34 | 23.11.2015 | Kolodkina Y. | Product migration file structure. Added comments for tags ‘initial\_service\_number, min\_count, max\_count’. |
| 7.35 | 22.12.2015 | Kondratyev A. | Clearing file structure. Added field ‘sttl\_date’ into tag ‘operation’. |
| 7.36 | 16.12.2015 | Alalykin A. | Clearing file structure. Field P0147 was added |
| 7.34 | 22.12.2015 | Alalykin A. | Card information interface. Field card\_state was added |
| 7.35 | 24.02.2016 | Truschelev O. | Card information interface. Added tag ‘tokenized\_pan’ |
| 7.36 | 24.02.2016 | Truschelev O. | Card information interface. Tag ‘tokenized\_pan’ is not mandatory now. |
| 7.37 | 24.02.2016 | Truschelev O. | Card information interface. Tag ‘tokenized\_pan’ is moved to header of XML file. |
| 7.38 | 15.03.2016 | Kolodkina Y. | Account and customers interface file structure. Added tag ‘service’ into tag account. |
| 7.39 | 16.03.2016 | Kolodkina Y. | Cards information interface. Added tag ‘service’ into tag card\_info. |
| 7.40 | 28.03.2016 | Kolodkina Y. | Amended description of tags: limit\_sum\_value and limit\_count\_value. |
| 7.41 | 31.05.2016 | Truschelev O. | Clearing file structure. Fields P0208\_1, P0208\_2, P0209 were added. |
| 7.42 | 20.06.2016 | Kolodkina Y. | Clearing file structure. Added fields: clearing\_sequence\_num, clearing\_sequence\_count into tag operation. |
| 7.43 | 05.07.2016 | Alalykin A. | Clearing file structure. New field auth\_purpose\_id was added to block auth\_data |
| 7.44 | 14.07.2016 | Kolodkina Y. | Credit migration file structure. Added new tag ‘overdue\_date’ into invoice. |
| 7.45 | 12.07.2016 | Alalykin A. | Accounts and customers interface transmission file structure. Tag tokenized\_pan was added. |
| 7.46 | 26.07.2016 | Alalykin A. | Currency rates file structure. Description of tag rate\_type was corrected. |
| 7.47 | 28.07.2016 | Kolodkina Y. | Cards information interface. The type of field card\_id was replaced. |
| 7.48 | 29.07.2016 | Alalykin A. | Cards information interface. New tag flexible\_data. |
| 7.49 | 29.07.2016 | Alalykin A. | Clearing file structure. New tag additional\_amount. |
| 7.50 | 03.08.2016 | Alalykin A. | Cards information interface. New tags agent\_name and product\_name. |
| 7.51 | 09.08.2016 | Truschelev O. | Card Security Data interface. New tag card\_security/PIN\_offset. |
| 7.52 | 29.08.2016 | Kazakov I. | Contact block is added for Card info service Cardholder |
| 7.53 | 31.01.2017 | Kondratyev A. | Accounts and customers interface file structure. Added tags ‘note’, ‘note\_type’, ‘note\_content’, ‘language’, ‘header’, ‘note\_text’ |
| 7.54 | 08.02.2017 | Pestryakov D. | Cards information interface. Added notification service tags ‘start\_date’ and ‘end\_date’ |
| 7.55 | 27.02.2017 | Shalnov N. | Cards information interface. Tags is\_pos\_currency, is\_atm\_currency added to block account. |
| 7.56 | 13.03.2017 | Pestryakov D. | Accounts and customers interface file structure. Tag ‘credit’ is added. |
| 7.57 | 13.03.2017 | Alalykin A. | Cards information interface. New complex tag stop\_list\_event |
| 7.58 | 27.03.2017 | Pestryakov D. | Accounts and customers interface file structure. Customer limit added (credit limit level) |
| 7.59 | 30.03.2017 | Gogolev I. | Accounts and customers interface file structure. Complex element flexible\_field added |
| 7.60 | 29.05.2017 | Gogolev I. | Accounts and customers interface file structure. Elements payment\_amount and aging\_period added |
| 7.61 | 01.08.2017 | Gyumyush D. | Cards information interface. Added a new account tag “instance\_number” |
| 7.62 | 11.08.2017 | Gogolev I. | Currency rates file structure. New dictionary values of tag rate\_type |
| 7.63 | 14.08.2017 | Serov A. | Reconciliation file structure. New interface created |
| 7.64 | 24.08.2017 | Serov A. | Reconciliation file structure. Changing file type of a reconciliation file |
| 7.65 | 25.08.2017 | Alalykin A. | Cards information interface. Account tag instance\_number was renamed to account\_seq\_number |
| 8.0 | 10.10.2017 | Alalykin A. | Merging changes from duplicated version (SmartVista FrontEnd), restoring correct SVXP structure |
| 8.1 | 12.10.2017 | Serov A. | Reconciliation Hosts file structure. New interface. |
| 8.2 | 02.11.2017 | Truschelev O. | Clearing information interface. Tag ‘forwarding\_inst\_bin’ is added in block ‘operation’ |
| 8.3 | 10.11.2017 | Kondratyev A. | Clearing file structure. Tag payment\_date has been added to block payment\_order. |
| 8.4 | 30.11.2017 | Gogolev I. | Added tag “service\_number” in block card\_info/notification |
| 8.5 | 27.12.2017 | Gogolev I. | Added tag “acq\_sttl\_date” for Clearing file structure in block Operation. Changed section 3.3.2 |
| 8.6 | 28.12.2017 | Serov Alexey | Host-to-host reconciliation have put into a separate document |
| 8.7 | 26.01.2018 | Zenkov P. | Clearing file structure. Added tag rate\_type to block transaction. |
| 8.8 | 05.02.2018 | Gerbeev I. | Added tag “product” (“MasterCard Product Identifier”) to table in section 12.3 LIST OF TAGS. |
| 8.9 | 06.04.2018 | Fomichev Andrey | Added Payment order file format (paragraph 18) |
| 8.10 | 09.04.2018 | Fomichev Andrey | Clearing file structure. Tag “match\_id” has been added to block “Operation”. (section 3.3.2). |
| 8.11 | 18.05.2018 | Gyumyush D. | Added risk indicator value into clearing file structure |
| 9.0 | 23.04.2018 | Kolodkina Y. | **Splitting svxp for CBS from svxp for FE**.  Card information file structure, Accounts and customer file structure, currency rates file structure were copied from svxp\_interfaces\_eng.docx to this specification. Svap\_acquiring\_eng.docx was copied into this specification. |
| 9.1 | 07.05.2018 | Fomichev A. | Type of “inst\_id” field changed to string(4) for card, account, merchant, terminal и rate unloading formats. |
| 9.2 | 26.06.2018 | Pestryakov D. | Clearing file structure. Flexible data tag added. |
| 9.3 | 01.08.2018 | Kolodkina Y. | Added tags partner\_id\_code and mc\_assigned\_id into complex tag Merchant. |
| 9.3 | 06.08.2018 | Pestryakov D. | Limit usage field added to limit structure |
| 9.4 | 17.08.2018 | Kolodkina Y. | Modified tag ‘Merchant\_card’. Tags ‘card\_product\_id’, ‘card\_type’ are removed. Tag ‘sequential\_number’ is added. |
| 9.5 | 31.08.2018 | Kolodkina Y. | Merchant and terminal file structure.  Added tag ‘Flexible\_field’ into. Tags ‘merchant’ and ‘terminal’. |
| 9.6 | 04.09.2018 | Kolodkina Y. | Card information interface.  Added tags:   * entity\_type, object\_id into tag ‘Customer’ * person\_id into tag ‘Person’ * country into tag ‘Identity\_card’   Added new articles:   * Person file structure * Company file structure |
| 9.7 | 17.09.2018 | Truschelev O. | Clearing file structure: (1) added tag “original\_id” in block “operation”, (2) added tag “status” in blocks “debit\_entry” and “credit\_entry”,  (3) added tag “balance\_type” in block “account”,  (4) rename tag “transaction\_id” into tag “auth\_transaction\_id” in block “auth\_data” |
| 9.8 | 14.09.2018 | Alalykin A. | Support of flexible fields for accounts and cards information interfaces |
| 9.9 | 17.09.2018 | Alalykin A. | Support of flexible fields for merchant and terminal file structure |
| 9.10 | 21.09.2018 | Kolodkina Y. | Currency rates file structure is moved to Dictionary specification |
| 9.11 | 24.09.2018 | Kolodkina Y. | Modified clearing file structure: Removed tags: baseII, IPM, note, document, transactions.  Updated account file structure according with process DBAL.  Updated merchant and terminal file structures according with processes MRC. |
| 9.12 | 01.10.2018 | Mikhailov V. | Clearing File Structure chapter. Removed tags note, response\_code, changed type date to dateTime. |
| 9.13 | 01.10.2018 | Kolodkina Y. | Clearing file structure. Added tag ‘seq\_number’ into complex tag ‘auth\_tag’. |
| 9.14 | 13.11.2018 | Mikhailov V. | Added tag trace\_number into complex tag 'auth\_tag'. |
| 9.15 | 18.12.2018 | Pestryakov D. | Status\_reason tag supported. |

* 1. Document purpose

SmartVista Exchange Protocol is a reference manual for developers who are implementing API of the SmartVista solution. This document is written for internal use of BPC and BPC Customers developers. The document describes the content and the structure of the API.

It is supposed document users to be familiar with financial transactions, communications and XML data format.

1. SMARTVISTA INTEGRATION SERVICES OVERVIEW
   1. General concepts

SmartVista Exchange Protocol (SVXP hereafter) provides a description of the file formats of information exchange between Smartvista and external systems. File format xml. For each format will be described in this document, XML Schema Definition language (XSD) and provided examples.

* 1. Data types, Occurrence, Dictionaries

For SVXP methods the standard XML data types are used. Those are fully described in the following document**XML Schema Part 2: Datatypes Second Edition and** t can be found here: [***http://www.w3.org/TR/xmlschema-2/***](http://www.w3.org/TR/xmlschema-2/)

Within the current document all the SVXP messages are described in the table structure below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AccountsRequest | | | | |
| customer\_number | string | 200 | 0-1 | Customer number. |
| Inst\_id | long | 4 | 1-1 | Institution identifier. |
| Customer\_id | long | 12 | 0-1 | Customer identifier. |
| Card\_number | string | 24 | 0-1 | Card number. |
| Card\_id | long | 12 | 0-1 | Card identifier. |
| Status | string | 8 | 0-1 | Account status. Please refer to ACST dictionary. |
| Account\_type | string | 8 | 0-1 | Account type. Please refer to ACTP dictionary. |
| Lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |

**Data Type:** SVXP tags can be of Primitive XML Data Types (string, long, vailab, etc ) or Complex Data Types (Aggregates).

**Occurrence**: This field defines if the field is mandatory or optional (first number) as well as maximum number occurrences of this tag in the message (last digit)

e.g. 1-1 = minOccurs=”1” maxOccurs=”1”

Documentation is provided along with Examples of the Request messages for all of the methods described below.

1. CLEARING FILE STRUCTURE
   1. Overview

The file contains comprehensive information on financial transactions. Including members of the operation, financial transactions created on the basis of the operation, as well as bank documents relating to them. The information about transactions is synchronized between the SmartVista and third-party system.

The direction of the file may be INCOMING.

* 1. References

Format of clearing file described by XSD file: svxp\_svfe\_clearing.xsd

Example of xml document with most common operation: svxp\_auth\_in\_example.xml – incoming operation.

* 1. List of elements

| Tag | Type | | Size | Occurs | Description |
| --- | --- | --- | --- | --- | --- |
| clearing | | | | | |
| file\_id | long | | 16 | 0-1 | Unique identifier of outgoing file |
| file\_type | string | | 8 | 1-1 | Type of incoming/ongoing file. Describe the purpose of data in file. Dictionary FLTP |
| start\_date | dateTime | |  | 0-1 | Start date of period which represented in file. The date include the date and time. |
| end\_date | dateTime | |  | 0-1 | Represented period end date. The date include the date and time. |
| inst\_id | int | | 4 | 0-1 | Identifier of partner (system) which related with operations. |
| operation | operation | |  | 1-\* | Operation data |
| operation | | | | | |
| oper\_id | long | | 16 | 0-1 | Operation identifier |
| oper\_type | string | | 8 | 1-1 | Operation type. Dictionary OPTP |
| msg\_type | string | | 8 | 0-1 | Message type. Dictionary MSGT |
| sttl\_type | string | | 8 | 0-1 | Settlement type. Dictionary STTT |
| original\_id | long | | 16 | 0-1 | Operation identifier of original operation |
| reconciliation\_type | string | | 8 | 0-1 | Reconciliation type. Dictionary RCLM |
| oper\_date | dateTime | |  | 0-1 | Date when operation occurs. The date include the date and time. |
| host\_date | dateTime | |  | 0-1 | Processing date. The date include the date and time. |
| oper\_count | long | | 16 | 0-1 | Operations count |
| oper\_amount | amount | |  | 0-1 | Original operation amount |
| oper\_request\_amount | amount | |  | 0-1 | Operation requested amount in operation currency |
| oper\_surcharge\_amount | amount | |  | 0-1 | Operation surcharge amount |
| oper\_cashback\_amount | amount | |  | 0-1 | Operation cashback amount |
| sttl\_amount | amount | |  | 0-1 | Settlement operation amount |
| interchange\_fee | amount | |  | 0-1 | Interchange fee amount |
| originator\_refnum | string | | 36 | 0-1 | Reference number generated by originator of operation |
| network\_refnum | string | | 36 | 0-1 | Reference number incoming from external network |
| acq\_inst\_bin | string | | 12 | 0-1 | Acquirer BIN |
| forwarding\_inst\_bin | string | | 12 | 0-1 | Forwarding BIN |
| oper\_reason | string | | 8 | 0-1 | Operation reason. Dictionary ADJR, PMRS, BLTP, LMTP |
| status | string | | 8 | 0-1 | Authorization status. Dictionary OPST |
| status\_reason | string | | 8 | 0-1 | Reason of status. Dictionary value. Dictionary OPSR |
| is\_reversal | int | | 1 | 0-1 | 0 – operation is not reversal  1 – operation is reversal |
| merchant\_number | string | | 15 | 0-1 | Merchant number |
| mcc | string | | 4 | 0-1 | Merchant category code |
| merchant\_name | string | | 200 | 0-1 | Merchant name |
| merchant\_street | string | | 200 | 0-1 | Merchant street address |
| merchant\_city | string | | 200 | 0-1 | Merchant’s city |
| merchant\_region | string | | 3 | 0-1 | Region of merchant |
| merchant\_country | string | | 3 | 0-1 | Country of merchant |
| merchant\_postcode | string | | 10 | 0-1 | Merchant’s postal code |
| terminal\_type | string | | 8 | 0-1 | Terminal type. Dictionary TRMT |
| terminal\_number | string | | 8 | 0-1 | Terminal number |
| sttl\_date | dateTime | |  | 0-1 | Settlement date. The date include the date and time. |
| acq\_sttl\_date | dateTime | |  | 0-1 | Settlement date on the acquirer side. The date include the date and time. |
| match\_status | string | | 8 | 0-1 | Matching status |
| payment\_order | payment\_order | |  | 0-1 | Describe payment order parameters |
| issuer | participant | |  | 0-1 | Operation participant – issuer |
| acquirer | participant | |  | 0-1 | Operation participant – acquirer |
| destination | participant | |  | 0-1 | Operation participant – destination |
| aggregator | participant | |  | 0-1 | Operation participant – payment aggregator |
| service\_provider | participant | |  | 0-1 | Operation participant – service provider |
| participant | participant | |  | 0-\* | Custom participant |
| auth\_data | auth\_data | |  | 0-1 | Authorization |
| additional\_amount | additional\_amount | |  | 0-\* | Operation’s additional amounts |
| processing\_stage | processing\_stage | |  | 0-\* | Processing stages that are associated with an operation |
| flexible\_data | flexible\_data | |  | 0-\* | Flexible fields and values |
| participant | | | | | |
| participant\_type | string | | 8 | 0-1 | Custom participant type. Dictionary PRTY |
| client\_id\_type | string | | 8 | 0-1 | Type of customer identification. Dictionary CITP |
| client\_id\_value | string | | 200 | 0-1 | Customer identifier in accordance with identification type |
| card\_number | string | | 19 | 0-1 | Card number |
| card\_id | long | | 12 | 0-1 | Internal card identifier |
| card\_instance\_id | long | | 12 | 0-1 | Internal card instance identifier |
| card\_seq\_number | int | | 4 | 0-1 | Card sequential number |
| card\_expir\_date | date | |  | 0-1 | Card expiration date |
| card\_country | string | | 3 | 0-1 | Card country |
| inst\_id | int | | 4 | 0-1 | Identifier of participant institution. |
| network\_id | int | | 4 | 0-1 | Network id |
| auth\_code | string | | 6 | 0-1 | Auth code |
| account\_number | string | | 32 | 0-1 | Account number |
| account\_amount | long | | 16 | 0-1 | Amount addressed to participant account |
| account\_currency | string | | 3 | 0-1 | Account currency |
| payment\_order | | | | | |
| payment\_order\_id | long | | 16 | 0-1 | Payment order identifier |
| payment\_order\_status | string | | 8 | 0-1 | Status of payment order. Dictionary POSA |
| payment\_order\_number | string | | 200 | 0-1 | Payment order number from external system |
| purpose\_id | int | | 8 | 0-1 | Purpose id |
| purpose\_number | string | | 200 | 0-1 | External purpose id |
| payment\_amount | amount | |  | 0-1 | Payment order amount |
| payment\_date | date | |  | 0-1 | Payment order date |
| payment\_parameter | complex | |  | 0-\* | Payment order parameter |
| participant\_type | string | | 8 | 0-1 | Participant type for using as customer in payment order. Dictionary:  PRTYACQ – acquirer  PRTYDST – destination  PRTYISS – issuer  PRTYPAGR – aggregator  PRTYSRVP – service provider  Participant of that type must be present in the operation |
| payment\_parameter | | | | | |
| payment\_parameter\_name | string | | 200 | 1-1 | Name of parameter |
| payment\_parameter\_value | string | | 2000 | 1-1 | Parameter value |
| amount | | | | | |
| amount\_value | long | | 16 | 1-1 | Amount value expressed in minimal currency units |
| currency | string | | 3 | 1-1 | Amount currency |
| auth\_data | | | | | |
| resp\_code | string | | 8 | 0-1 | Response code. Dictionary RESP |
| proc\_type | string | | 8 | 0-1 | Type of authorization processing. Dictionary AUPT |
| proc\_mode | string | | 8 | 0-1 | Mode of authorization processing. Dictionary AUPM |
| is\_advice | int | | 1 | 0-1 | Flag shows if authorization is advice. |
| is\_repeat | int | | 1 | 0-1 | Flag shows if authorization is repeat. |
| bin\_amount | long | | 16 | 0-1 | Account billing amount in BIN currency |
| bin\_currency | string | | 3 | 0-1 | BIN currency |
| bin\_cnvt\_rate | long | | 16 | 0-1 | Converting rate from BIN currency into transaction currency. |
| network\_amount | long | | 16 | 0-1 | Account billing amount in network BIN currency |
| network\_currency | string | | 3 | 0-1 | Network BIN currency |
| network\_cnvt\_date | date | |  | 0-1 | Date of network conversion |
| network\_cnvt\_rate | long | | 16 | 0-1 | Converting rate from network BIN currency into transaction currency. |
| account\_cnvt\_rate | long | | 16 | 0-1 | Converting rate from account(billing) currency into transaction currency. |
| addr\_verif\_result | string | | 8 | 0-1 | Result of address verification if it was performed. Dictionary AVRS |
| acq\_resp\_code | string | | 8 | 0-1 | Response code that was sent to authorization source. |
| acq\_device\_proc\_result | string | | 8 | 0-1 | Result of response processing by device. |
| card\_data\_input\_cap | string | | 8 | 0-1 | Card data input capability. Dictionary F221 |
| crdh\_auth\_cap | string | | 8 | 0-1 | Cardholder authentication capability. Dictionary F222 |
| card\_capture\_cap | string | | 8 | 0-1 | Card capture capability. Dictionary F223 |
| terminal\_operating\_env | string | | 8 | 0-1 | Operating environment. Dictionary F224 |
| crdh\_presence | string | | 8 | 0-1 | Cardholder presence indicator. Dictionary F225 |
| card\_presence | string | | 8 | 0-1 | Card presence indicator. Dictionary F226 |
| card\_data\_input\_mode | string | | 8 | 0-1 | Card data input mode. Dictionary F227 |
| crdh\_auth\_method | string | | 8 | 0-1 | Cardholder authentication method. Dictionary F228 |
| crdh\_auth\_entity | string | | 8 | 0-1 | Cardholder authentication entity. Dictionary F229 |
| card\_data\_output\_cap | string | | 8 | 0-1 | Card data output capability. Dictionary F22A |
| terminal\_output\_cap | string | | 8 | 0-1 | Terminal output capability. Dictionary F22B |
| pin\_capture\_cap | string | | 8 | 0-1 | Pin capture capability. Dictionary F22C |
| pin\_presence | string | | 8 | 0-1 | Pin presence indicator. Dictionary PINP |
| cvv2\_presence | string | | 8 | 0-1 | CVC2/CVV2 presence indicator. Dictionary CV2P |
| cvc\_indicator | string | | 8 | 0-1 | CVC validation code result. |
| pos\_entry\_mode | string | | 3 | 0-1 | POS entry mode |
| pos\_cond\_code | string | | 2 | 0-1 | POS condition code |
| emv\_data | string | | 2000 | 0-1 | EMV raw data |
| addl\_data | string | | 2000 | 0-1 | Additional authorization data. |
| service\_code | string | | 3 | 0-1 | Service code |
| device\_date | date | |  | 0-1 | Date on device when authorization was I |
| cvv2\_result | string | | 8 | 0-1 | CVV2 result. Dictionary CV2R |
| is\_completed | string | | 8 | 0-1 | Flag shows if authorization is completed. Dictionary CMPF |
| amounts | string | | 4000 | 0-1 | Authorization amounts for online authorization processing |
| system\_trace\_audit\_number | string | | 6 | 0-1 | System Trace Audit Number |
| auth\_transaction\_id | string | | 15 | 0-1 | Authorization transaction identifier |
| external\_auth\_id | string | | 30 | 0-1 | External authorization identifier |
| external\_orig\_id | string | | 30 | 0-1 | External authorization identifier of original |
| trace\_number | string | | 30 | 0-1 | SVFE Trace number |
| agent\_unique\_id | string | | 5 | 0-1 | Agent unique ID (Digital entity identifier for VISA checkout) |
| native\_resp\_code | string | | 2 | 0-1 | Authorization response code in native format |
| auth\_purpose\_id | long | | 16 | 0-1 | Authorization purpose identifier. It is additional attribute of an operation that specifies purpose of a payment |
| auth\_tag | auth\_tag | |  | 0-\* | Authorizations tags |
| auth\_tag | | | | | |
| tag\_id | int | | 8 | 0-1 | Tag identifier. This tag optional if present tag\_name |
| tag\_name | string | | 200 | 0-1 | Tag name. This tag optional if present tag\_id |
| tag\_value | string | | 2000 | 0-1 | Tag value |
| seq\_number | int | | 4 | 0-1 | Sequential number of tag occurrence in operation |
| additional\_amount | | | | | |
| amount\_value | | long | 22 | 1-1 | Additional amount’s value |
| currency | | string | 3 | 1-1 | Additional amount’s currency code |
| amount\_type | | string | 8 | 1-1 | Amount’s type, it is a dictionary article (dictionaries AMPR, FETP, BLTP, LMTP, etc.) |
| processing\_stage | | | | | |
| proc\_stage | | string | 8 | 1-1 | Processing stage, an article of dictionary PSTG |
| status | | string | 8 | 1-1 | Operation status, an article of dictionary OPST |
| flexible\_data | | | | | |
| field\_name | | string | 200 | 1-1 | Flexible field name |
| field\_value | | string | 200 | 1-1 | Flexible field value |

CLEARING

It is the root tag of the clearing file. It contains a set of financial operations.

FILE\_ID

The unique identifier of the file generated in the SmartVista. It makes sense only in the outgoing files from SmartVista.

FILE\_TYPE

Determines what type of file data in the file. The same type of file can define a set of mandatory fields (for different types of it can vary) and the corresponding loader for him.

|  |  |
| --- | --- |
| Code | Description |
| FLTP1700 | Operations for loading |
| FLTP1710 | Operations for unloading |

START\_DATE

Date of beginning of the period which includes transactions presented in the file. The date include the date and time.

END\_DATE

End of the period which includes transactions presented in the file. The date include the date and time.

INST\_ID

Institution identifier (participant of the processing), which own operations in the file.

OPERATION

Tag contains general information about the operation and combines the financial data of all transactions.

OPER\_ID

Unique identifier of operation.

OPER\_TYPE

Type of operation. Determines the purpose and method of processing the operation.

| Code | Description |
| --- | --- |
| OPTP0000 | Purchase |
| OPTP0001 | ATM Cash withdrawal |
| OPTP0009 | Purchase with casback |
| OPTP0010 | P2P Debit |
| OPTP0011 | P2P |
| OPTP0012 | POS Cash advance |
| OPTP0018 | Unique Transaction (Quasi Cash) |
| OPTP0019 | Fee collection (credit to originator) |
| OPTP0020 | Purchase return (Credit) |
| OPTP0022 | Cash-In |
| OPTP0026 | P2P Credit |
| OPTP0027 | Payment notification |
| OPTP0028 | Payment transaction |
| OPTP0029 | Fee collection (debit to originator) |
| OPTP0030 | Balance inquiry |
| OPTP0031 | Customer inquiry |
| OPTP0032 | Customer check |
| OPTP0038 | Statement request |
| OPTP0039 | Mini statement request |
| OPTP0040 | Customer account funds transfer |
| OPTP0041 | Internal account funds transfer |
| OPTP0042 | Foreign account funds transfer |
| OPTP0043 | Funds transfer credit |
| OPTP0060 | Service provider payment |
| OPTP0070 | PIN Change |
| OPTP0071 | PIN unblock |
| OPTP0119 | Issuer fee |
| OPTP0171 | Change card status |
| OPTP0172 | Change account status |
| OPTP0173 | Attach service |
| OPTP0174 | Detach service |
| OPTP0219 | Acquirer fee |
| OPTP0244 | Currency exchange |
| OPTP0250 | Settlement totals of the terminal |
| OPTP0251 | Clerk totals of the terminal |
| OPTP0252 | Change terminal status |
| OPTP0253 | Change merchant status |
| OPTP0319 | Institution fee |
| OPTP0400 | Debit account |
| OPTP0401 | Set account balance |
| OPTP0402 | Account debit adjustment |
| OPTP0403 | Set entity limit |
| OPTP0412 | Cash withdrawal from account |
| OPTP0422 | Account credit adjustment |
| OPTP0428 | Credit account |
| OPTP0432 | Counterparty account debit adjustment |
| OPTP0690 | Create virtual card |
| OPTP0801 | ATM cassettes setup 1 |
| OPTP0802 | ATM cassettes setup 2 |
| OPTP0803 | ATM settlement |
| OPTP0804 | ATM reset |
| OPTP0805 | ATM receipts setup |
| OPTP0806 | ATM cash adjustment |
| OPTP1001 | Providing credit limit |
| OPTP1100 | Loyalty points purchase |
| OPTP1102 | Manual loyalty points redemption |
| OPTP1122 | Manual loyalty points enrollment |
| OPTP1128 | Loyalty points earning |
| OPTP1500 | DPP purchase |
| OPTP1501 | DPP registration |

MSG\_TYPE

Financial message type.

| Code | Description |
| --- | --- |
| MSGTACBK | Arbitration chargeback |
| MSGTAUTH | Authorization |
| MSGTBTCH | Batch upload |
| MSGTCHBK | Chargeback |
| MSGTCMPL | Authorization completion |
| MSGTFPST | Forced post |
| MSGTPRES | Presentment |
| MSGTPREU | Preauthorization |
| MSGTREPR | Representment |
| MSGTRLBK | Rollback |
| MSGTRTRQ | Retrieval request |
| MSGTSCDL | Authorization schedule registration |
| MSGTSPLT | Split |
| MSGTSTAT | Authorization status |
| MSGTVALD | Authorization validation |

STTL\_TYPE

Type of settlement depends on the accessory to the participants involved in the operation processing. Value based on dictionary STTT.

**RECONCILIATION\_TYPE**

Type reconciliation of operation. If element absent used value RCLMNONE.

| Code | Description |
| --- | --- |
| RCLMFULL | Full |
| RCLMNONE | None |

OPER\_DATE

Date of the transaction by the client. The date of the transaction by the client.

HOST\_DATE

Date of transaction processing in the system. The date of creating operations in SV2.

**OPER\_COUNT**

Operations count. If the value oper\_count is null, the default value will be set 1. In some cases, it may come as batch of operations as one record. Count of operation is used to set limit of count and calculate fees.

OPER\_AMOUNT

Original amount of operation.

AMOUNT\_VALUE

The value of the amount in minimum denominations of currency.

CURRENCY

The currency of the transaction amount. Numeric ISO currency code.

ORIGINATOR\_REFNUM

A unique identifier generated by the initiator of the transaction.

NETWORK\_REFNUM

The unique identifier of the operation generated by network which exterior to the SmartVista.

ACQ\_INST\_BIN

The ID of the acquiring institution in acquiring network.

RESPONSE\_CODE

Response code returned as the result of processing the transaction.

| Code | Description |
| --- | --- |
| RESP0000 | Undefined |
| RESP0001 | Successful authorization |
| RESP0002 | Common error, unsuccessful response code |
| RESP0003 | Timeout waiting for issuer response |
| RESP0004 | Issuer is unavailable |
| RESP0005 | Failed to obtain acquirer BIN |
| RESP0006 | Cannot obtain card issuer information |
| RESP0007 | Cannot obtain authorization scenario for operation |
| RESP0008 | No original operation for reversal |
| RESP0009 | Reversal is duplicated |
| RESP0010 | Reversal does not match with original |
| RESP0011 | No connection between host and external system |
| RESP0012 | Invalid terminal state to perform operation |
| RESP0013 | Unexpected timeout I |
| RESP0014 | Unable to map settlement type |
| RESP0015 | No processing rules |
| RESP0016 | Card not found |
| RESP0017 | Unknown card status |
| RESP0018 | Invalid card status |
| RESP0019 | Wrong service code |
| RESP0020 | PIN attempts exceeded |
| RESP0021 | Insufficient funds |
| RESP0022 | Limit exceeded |
| RESP0023 | Can’t get account |
| RESP0024 | Can’t get amount |
| RESP0025 | Invalid PIN |
| RESP0026 | Invalid PIN block |
| RESP0027 | Invalid key |
| RESP0028 | Card not activated |
| RESP0029 | Invalid CVV |
| RESP0030 | Invalid ARQC |
| RESP0031 | Invalid CVV2 |
| RESP0032 | Service not allowed |
| RESP0033 | Invalid address verification data |
| RESP0034 | Account not found |
| RESP0035 | Can’t find customer |
| RESP0036 | Stolen card |
| RESP0037 | Expired card |
| RESP0038 | Account restricted |
| RESP0039 | Payment channel not available. |
| RESP0040 | Can’t find terminal |
| RESP0041 | Cancelation not allowed |
| RESP0042 | Limit exceeded on receiving side |
| RESP0043 | Call issuer (refer to card issuer) |
| RESP0044 | Do not honor |
| RESP0045 | Honor with ID |
| RESP0046 | Lost card |
| RESP0047 | Invalid destination account |
| RESP0048 | Capture card |
| RESP0049 | Customer cancellation |
| RESP0050 | Invalid amount |
| RESP0051 | Preauthorization not found |
| RESP0052 | Completion timeout exceeded |
| RESP0053 | Preauthorization failed |
| RESP0054 | Preauthorization canceled |
| RESP0055 | Illegal sum of completion |
| RESP0056 | Completion is dublicated |
| RESP0057 | Invalid track |
| RESP0058 | Invalid request |
| RESP0059 | PIN Not Changed |
| RESP0060 | Unacceptable PIN transaction |
| RESP0061 | Format error |
| RESP0062 | Not declined |
| RESP0063 | Partial approval |
| RESP0064 | Suspected Fraud |
| RESP0065 | Invalid merchant |
| RESP0067 | The request was rejected |
| RESP0068 | Invalid CVC3 |
| RESP0069 | Invalid dCVV |
| RESP0070 | Invalid AAV |
| RESP0071 | Invalid CAVV |

OPER\_REASON

Operation reason (fee type or adjustment type). It’s a dictionary article. These dictionaries should be used here: ADJR, PMRS, BLTP, LMTP.

Payment reason (PMRS dictionary).

| Code | Description |
| --- | --- |
| MADP | MAD payment |

STATUS

Authorization status (OPST dictionary).

| Code | Description |
| --- | --- |
| OPST0001 | Online incomplete |
| OPST0100 | Ready to process |
| OPST0101 | Does not require processing |
| OPST0102 | Frozen for manual processing |
| OPST0107 | Merged |
| OPST0110 | Waits for clearing upload |
| OPST0120 | Waits for settlement confirmation |
| OPST0130 | Waits activation |
| OPST0200 | Wrong data |
| OPST0300 | Corrected |
| OPST0400 | Processed |
| OPST0401 | Presentment processed |
| OPST0402 | Unholded |
| OPST0403 | Authorized |
| OPST0404 | Processed without entries |
| OPST0500 | Processing error |
| OPST0501 | Unsuccessful authorization |
| OPST0600 | No rules selected |
| OPST0800 | Processed, awaits unhold |
| OPST0850 | Processed, partial unholded |

STATUS\_REASON

Reason of status. Dictionary value (OPSR dictionary).

| Code | Description |
| --- | --- |
| OPSR0500 | Limit has been exceeded |
| OPSR0501 | Limit of recipient has been exceeded |
| OPSR0502 | Cannot be selected account |
| OPSR0503 | Insufficient funds |

IS\_REVERSAL

Reversal flag of an operation:

0 – operation is not reversal;

1 – operation is reversal.

MERCHANT\_NUMBER

Merchant number received from payment network.

MCC

Merchant Category Code.

MERCHANT\_NAME

Merchant name registered in payment network.

MERCHANT\_STREET

Merchant street.

MERCHANT\_CITY

Merchant city.

MERCHANT\_REGION

Merchant region – two or three character code.

MERCHANT\_COUNTRY

Merchant country. Numeric ISO country code.

MERCHANT\_POSTCODE

Merchant postal code.

TERMINAL\_TYPE

Terminal type.

| Code | Description |
| --- | --- |
| TRMT0001 | Imprinter |
| TRMT0002 | ATM |
| TRMT0003 | POS |
| TRMT0004 | ePOS |
| TRMT0005 | Mobile |
| TRMT0006 | Internet |
| TRMT0007 | Mobile POS |

TERMINAL\_NUMBER

Terminal number.

**MATCH\_STATUS**

Operation matching status

**STTL\_DATE**

Operation settlement date

**ACQ\_STTL\_DATE**

Operation settlement date on the acquirer side – for them-on-them operations in switching solutions.

**MATCH\_ID**

Link between authorizations and presentment. Used for matching of Authorization and Presentment for US-ON-THEM.

PARTICIPANT

Participant of operation.

PARTICIPANT\_TYPE

Type of participating party. Mandatory for custom participants.

| Code | Description |
| --- | --- |
| PRTYACQ | Acquirer |
| PRTYISS | Issuer |
| PRTYDST | Recipient of funds |
| PRTYPAGR | Payment aggregator |
| PRTYSRVP | Payment service provider |
| PRTYINST | Institution (Bank) |
| PRTYLTY | Loyalty accounting |

CLIENT\_ID\_TYPE

A method for identifying a client when processing the transaction.

| Code | Description |
| --- | --- |
| CITPACCT | Identification by account |
| CITPCARD | Identification by card number (PAN) |
| CITPCDID | Identification by card’s internal identifier |
| CITPCASH | No identification, but cash is present |
| CITPCMCH | Identification by card mask and card holder pair |
| CITPCMPH | Identification by card mask and mobile phone number pair |
| CITPCNTR | Identification by contract number |
| CITPCUST | Identification by customer number |
| CITPEMAI | Identification by e-mail |
| CITPMBPH | Identification by mobile phone number |
| CITPMRCT | Identification by merchant number |
| CITPNONE | No identification |
| CITPSRVP | Identification by service provider number |
| CITPTRMN | Identification by terminal number |
| CITPUNKN | Unknown identification |
| CITPXCRD | Identification by linked card |

CLIENT\_ID\_VALUE

The ID of the client in accordance with the type of identification: the account number, card number, mobile phone number, etc.

CARD\_NUMBER

Card number used in operation.

CARD\_SEQ\_NUMBER

The sequence number for the plastic card number.

CARD\_EXPIR\_DATE

Card expiration date.

INST\_ID

Identifier of institution which owns the customer participated in operation.

NETWORK\_ID

Identifier of the network which is related with the participant.

AUTH\_CODE

The authorization code received by participants as a result of the successful operation processing.

ACCOUNT\_NUMBER

Participating party account number.

ACCOUNT\_AMOUNT

Part of operation amount that affects participant.

ACCOUNT\_CURRENCY

Currency of participant account.

PAYMENT\_ORDER

Payment order for the client, on the basis of which the financial transaction was created.

PAYMENT\_ORDER\_ID

Payment order identifier.

PAYMENT\_ORDER\_STATUS

Payment order status.

| Code | Description |
| --- | --- |
| POSA0001 | Awaiting processing |
| POSA0002 | Awaiting confirmation |
| POSA0010 | Processed |
| POSA0020 | Canceled |
| POSA0100 | Preparation |

PAYMENT\_PARAMETER

Contains the data of one props payment order.

PAYMENT\_PARAMETER\_NAME

Property name.

PAYMENT\_PARAMETER\_VALUE

Property value.

ADDITIONAL AMOUNT

It contains data about additional amounts that are linked with an operation.

AMOUNT\_VALUE

An additional amount of an operation.

CURRENCY

A currency code of an additional amount (numeric ISO currency code).

AMOUNT\_TYPE

A dictionary article of some dictionary that contains amount types.

1. ACCOUNTS FILE STRUCTURE
   1. Overview

The file is intended for off-line synchronization of customer data and accounts with external front end systems in cases where SmartVista is the main system of the customers and accounts registration.

The direction of the file is OUTGOING.

* 1. References

Format of account and customers interface file described by XSD file: svxp\_svfe\_account.xsd

Example of xml document:

svxp\_svfe\_account\_example.xml

svxp\_svfe\_account\_turnover\_example.xml

* 1. List of elements

Depending on information to receive there are two formats the customer’s data can be represented:

account list

For each of the formats the corresponding root element is used (ACCOUNTS). However, the document structure is very similar and they share common structural elements, so both ways are presented in the document. In the file data are represented in XML document form with the structure described below.

For Accounts:

| Tag | Type | Size | Occurs | Description |
| --- | --- | --- | --- | --- |
| accounts | | | | |
| file\_id | long | 16 | 0-1 | Output file unique ID. |
| file\_type | string | 8 | 1-1 | Input/output file type. Defines its purpose and way of processing. Dictionary FLTP. |
| file\_date | date |  | 1-1 | File creation date. |
| start\_date | date |  | 0-1 | Start date of the period the file was converted. |
| end\_date | date |  | 0-1 | End date of the period. |
| date\_purpose | string | 8 | 0-1 | Date types presented in the file. Possible values:  DTPR0001 – Calendar system date of processing. |
| inst\_id | string | 4 | 0-1 | Financial institution ID or Number. |
| tokenized\_pan | int | 1 | 0-1 | Flag indicates if tokenized PANs are exported:  0 – clear PANs are used;  1 – tokens are used instead of clear PANs. |
| account | complex |  | 1-\* | Account data. |
| account | | | | |
| account\_number | string | 200 | 1-1 | Account number. |
| account\_type | string | 8 | 0-1 | Account type. Please refer to ACTP dictionary. |
| account\_status | string | 8 | 0-1 | Account status. Please refer to ACST dictionary. |
| status\_reason | string | 8 | 0-1 | Last status change reason |
| currency | string | 3 | 1-1 | Account currency. |
| aval\_balance | long | 18 | 1-1 | Available balance of the account. |
| create\_date | date |  | 1-1 | Creation date of account |
| balance | complex |  | 0-\* | Account balances. |
| credit | complex |  | 0-1 | Credit information |
| limits | complex |  | 0-1 | Account limits. |
| payment | complex |  | 0-\* | Payments |
| service | complex |  | 0-\* | Services of account |
| flexible\_data | complex |  | 0-\* | Flexible field block |
| balance | | | | |
| balance\_type | string | 8 | 1-1 | Balance type. Please refer to BLTP dictionary. |
| turnover | complex |  | 0-1 | Turnover of balances. |
| turnover | | | | |
| outgoing\_balance | long | 18 | 1-1 | Output balance amount. |
| credit | | | | |
| sttl\_date | date |  | 0-1 | invoice date |
| mad\_amount | long | 18 | 0-1 | Minimum amount due |
| grace\_date | date |  | 0-1 | Grace date |
| total\_amount\_due | long | 18 | 0-1 | Total amount due |
| payment\_amount | long | 18 | 0-1 | Payments amount made in last period |
| aging\_period | long | 18 | 0-1 | Number of aging period |
| limits | | | | |
| limit | complex |  | 0-\* | Limit of account. |
| limit | | | | |
| limit\_type | string | 8 | 1-1 | Limit type |
| sum\_limit | long | 18 | 1-1 | Value of sum limit. |
| count\_limit | long | 18 | 1-1 | Value of count limit. |
| sum\_current | long | 18 | 1-1 | Current value of limit. |
| currency | string | 3 | 1-1 | Limit currency. |
| next\_date | date |  | 0-1 | Next cycle date. |
| length\_type | string | 8 | 0-1 | Date calculation unit (Year, Month, Week, Day). |
| cycle\_length | int | 4 | 0-1 | Cycle length in defined units. |
| limit\_usage | string | 8 | 0-1 | Limit usage |
| payment | | | | |
| oper\_id | long | 16 | 1-1 | Operation identifier |
| card\_seq\_number | int | 3 | 1-1 | Card sequence number. |
| card\_number | string | 19 | 1-1 | Card number |
| card\_id | string | 200 | 0-1 | Internal card instance identifier(UID) |
| oper\_amount | long | 8 | 1-1 | Original operation amount |
| oper\_currency | string | 3 | 1-1 | Currency of operation |
| oper\_date | date |  | 1-1 | Date when operation occurs |
| oper\_type | string | 8 | 1-1 | Operation type. Dictionary OPTP |
| originator\_refnum | string | 36 | 0-1 | Reference number generated by originator of operation |
| note | complex |  | 0-\* | Operation note |
| **note** | | | | |
| note\_type | string | 8 | 1-1 | Note type: NTTPUSER – user comment;  NTTPRSTR – Notes for registry of opened and closed accounts;  NTTPDLVR – Delivery notes. |
| cote\_content | complex |  | 1-\* | Content of the note |
| **note\_content** | | | | |
| language | string | 8 | 1-1 | Attribute. Dictionary LANG. For example:   * LANGENG * LANGRUS * LANGBUL |
| note\_header | string | 4000 | 0-1 | Header of the note |
| note\_text | string | 4000 | 0-1 | Text of the note |
| **service** | | | | |
| service\_type | string | 8 | 1-1 | Service type |
| service\_type\_name | string | 200 | 1-1 | Service name |
| service\_external\_code | string | 200 | 0-1 | Service external code |
| service\_number | string | 200 | 0-1 | Service number |
| is\_active | int | 1 | 1-1 | Sign of service activity |
| service\_attribute | complex |  | 0-\* | Attribute of service |
| **service\_attribute** | | | | |
| service\_attribute\_name | string | 200 | 1-1 | Service attribute name (only for type DTTPCHAR) |
| service\_attribute\_value | string | 200 | 0-1 | Service attribute value |
| **flexible\_data** | | | | |
| field\_name | string | 200 | 1-1 | Name of flexible field |
| field\_value | string | 200 | 1-1 | Value of flexible field |

ACCOUNTS

This is a file root element that combines account data upload to external system.

ACCOUNT

The element contains all data of one particular customer’s account.

ADDRESS

The element contains customer post address data. There may be several addresses of different purposes for a customer. An address type defines its purpose.

BALANCE

Balance account is a part of the customer‘s account and defines its financial circumstances, fund on the account. Available account balance is calculated as a sum of all balance accounts with the corresponding sign.

CREDIT

This block contains information about credit on credit account.

TURNOVER

The element contains information about balance account turnovers per a period specified in the file main element.

FLEXIBLE\_DATA

The element contains flexible fields with theirs values.

1. CARDS INFORMATION INTERFACE
   1. Overview

Format is using for export of information about cards and entities relating to cards: customers, cardholders (with person and identity card) and accounts

The direction of the file is OUTGOING.

* 1. References

Format of card information file described by XSD file: svxp\_svfe\_card\_info.xsd

Example of xml document:

svxp\_svfe\_cards\_info.xml

* 1. List of tags

| Tag name | Data type | | | Length | Occurs | | Description |
| --- | --- | --- | --- | --- | --- | --- | --- |
| cards\_info | | | | | | | |
| file\_type | string | | | 8 | 1-1 | | File type code. Constant FLTPCINF |
| inst\_id | string | | | 4 | 1-1 | | Institution of cards in file |
| tokenized\_pan | int | | | 1 | 0-1 | | Tokenized PAN downloading:  1 – PANs are tokenized 0 – PANs are clean |
| card\_info | card\_info | | |  | 1-\* | | Encapsulates all information about one card |
| card\_info | | | | | | | |
| card\_number | string | | | 24 | 0-1 | | Card number (PAN) |
| card\_mask | string | | | 24 | 0-1 | | Masked card number |
| card\_id | string | | | 200 | 0-1 | | Internal card instance identifier(UID) |
| card\_iss\_date | date | | |  | 0-1 | | Date of card issuing |
| card\_start\_date | date | | |  | 0-1 | | Card validity start date |
| expiration\_date | date | | |  | 0-1 | | Expiration date of card instance |
| instance\_id | int | | | 12 | 0-1 | | Card instance identifier |
| preceding\_instance\_id | int | | | 12 | 0-1 | | Preceding card instance identifier |
| sequential\_number | int | | | 4 | 0-1 | | Sequential number of a plastic (card instance) |
| card\_status | string | | | 8 | 0-1 | | Status of card. Value from dictionary CSTS |
| status\_reason | string | | | 8 | 0-1 | | Last status change reason |
| card\_state | string | | | 8 | 0-1 | | State of a card. Value from dictionary CSTE |
| category | string | | | 8 | 0-1 | | Category of card. Value from dictionary CRCG. |
| Sec\_word | complex | | |  | 0-1 | | Secret word |
| pvv | int | | | 4 | 0-1 | | PIN verification value |
| pin\_offset | int | | | 12 | 0-1 | | PIN offset value |
| pin\_update\_flag | boolean | | | 1 | 0-1 | | PIN update flag |
| card\_type\_id | int | | | 4 | 0-1 | | Card type identifier |
| prev\_card\_number | string | | | 24 | 0-1 | | Old (previous) card number (PAN) |
| prev\_card\_id | string | | | 200 | 0-1 | | Old (previous) Internal card instance identifier(UID) |
| agent\_number | string | | | 200 | 0-1 | | Agent external number |
| agent\_name | string | | | 200 | 0-1 | | Agent name |
| product\_number | string | | | 200 | 0-1 | | Product external number |
| product\_name | string | | | 200 | 0-1 | | Product name |
| customer | complex | | |  | 0-1 | | Encapsulates all information about card’s customer |
| cardholder | complex | | |  | 0-1 | | Encapsulates all information about cardholder of card |
| account | complex | | |  | 0-\* | | Encapsulates all information about card’s connected account |
| preceding\_instance | complex | | |  | 0-\* | | Preceding instance |
| limits | complex | | |  | 0-1 | | Card limits |
| notification | complex | | |  | 0-\* | | Notifications |
| personalization\_info | personalization\_info | | |  | 0-1 | | Data for personalization system |
| company\_name | string | | | 200 | 0-1 | | Company name for corporate cards |
| service\_code | string | | | 3 | 0-1 | | Service code according to ISO/IEC 7813. |
| Service | complex | | |  | 0-\* | | Services of card |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
| stop\_list\_event | complex | | |  | 0-\* | | Stop list event data |
| sec\_word | | | | | | | |
| secret\_question | string | | | 8 | 1-1 | | Secret question. Value from dictionary SEQU. |
| Secret\_answer | string | | | 200 | 1-1 | | Secret answer. |
| customer | | | | | | | |
| customer\_number | string | | | 200 | 0-1 | | Unique customer number |
| customer\_category | string | | | 8 | 0-1 | | Customer category. Dictionary value. |
| customer\_relation | string | | | 8 | 0-1 | | Relation between institute and customer. Dictionary value. |
| resident | int | | | 1 | 0-1 | | 1 – customer is resident of institution country 0 – not resident |
| nationality | int | | | 3 | 0-1 | | Country code of nationality of customer |
| credit\_rating | string | | | 8 | 0-1 | | Credit rating. Dictionary value. |
| money\_laundry\_risk | string | | | 8 | 0-1 | | Money laundry risk. Dictionary value. |
| money\_laundry\_reason | string | | | 8 | 0-1 | | Reason of money laundry risk. Dictionary value. |
| entity\_type | string | | | 8 | 1-1 | | A customer type from dictionaty ENTT: ETNNPERS - Person, ENTTCOMP - Company |
| object\_id | long | | | 12 | 0-1 | | Reference to a person or company which represents customer entity |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
| cardholder | | | | | | | |
| cardholder\_number | string | | | 200 | 0-1 | | Unique number of cardholder. |
| cardholder\_name | string | | | 200 | 0-1 | | Cardholder embossed name. |
| person | person | | |  |  | | Contains information about person of cardholder |
| address | complex | | |  | 0-\* | | Cardholder’s address block |
| contact | complex | | |  | 0-\* | | Cardholder’s contacts block |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
| person | | | | | | | |
| person\_id | long | | | 12 | 1-1 | | Unique identifier of person in SVBO |
| person\_title | string | | | 8 | 0-1 | | Person title. Dictionary value. |
| Person\_name | person\_name | | |  | 1-1 | | Encapsulates information about name of person. Tag must to have attribute language with dictionary value which language used for name |
| suffix | string | | | 8 | 0-1 | | Suffix of person. Dictionary value. |
| Birthday | date | | |  | 0-1 | | Birthday |
| place\_of\_birth | string | | | 200 | 0-1 | | Place of birth |
| gender | string | | | 8 | 0-1 | | Person’s gender |
| identity\_card | identity\_card | | |  | 0-\* | | Contains information about identifying documents of person |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
| person\_name | | | | | | | |
| surname | string | | | 200 | 1-1 | | Surname |
| first\_name | string | | | 200 | 1-1 | | First name |
| second\_name | string | | | 200 | 0-1 | | Second name |
| identity\_card | | | | | | | |
| id\_type | string | | | 8 | 1-1 | | Type of identity card. Dictionary value. |
| Id\_series | string | | | 200 | 0-1 | | Series of identity card. |
| Id\_number | string | | | 200 | 1-1 | | Number of identity card. |
| country | string | | | 3 | 0-1 | | Identification ISO country code where ID is issued |
| Id\_issuer | string | | | 200 | 0-1 | | Identity card’s issuer name |
| id\_issue\_date | date | | |  | 0-1 | | Date of issuing |
| id\_expire\_date | date | | |  | 0-1 | | Date of expiring |
| id\_desc | string | | | 2000 | 0-1 | | Description |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
|  |  | | |  |  | |  |
| account | | | | | | | |
| account\_number | | string | | 32 | 0-1 | | Account number |
| currency | | int | | 3 | 0-1 | | Currency code of account |
| account\_type | | string | | 8 | 0-1 | | Type of account |
| account\_status | | string | | 8 | 0-1 | | Current status of account |
| is\_pos\_default | | int | | 1 | 0-1 | | Default account for POS |
| is\_atm\_default | | int | | 1 | 0-1 | | Default account for ATM |
| is\_atm\_currency | | Int | | 1 | 0-1 | | Default ATM in currency |
| is\_pos\_currency | | int | | 1 | 0-1 | | Default POS in currency |
| account\_seq\_number | | int | | 2 | 0-1 | | Account sequential number |
| preceding\_instance | | | | | | | |
| card\_number | string | | | 24 | 0-1 | | Card number (PAN) |
| card\_mask | string | | | 24 | 0-1 | | Masked card number |
| card\_id | int | | | 12 | 0-1 | | Internal card identifier |
| expiration\_date | date | | |  | 0-1 | | Expiration date of card instance |
| instance\_id | int | | | 12 | 1-1 | | Card instance identifier |
| preceding\_instance\_id | int | | | 12 | 0-1 | | Preceding card instance identifier |
| reissue\_reason | string | | | 8 | 0-1 | | Reason for reissue card. Dictionary value. |
| **limits** | | | | | | | | |
| limit | complex | | |  | 0-\* | Account limit | | |
| **limit** | | | | | | | | |
| limit\_type | string | | | 8 | 1-1 | Limit type | | |
| sum\_limit | long | | | 18 | 1-1 | Value of limit sum | | |
| count\_limit | long | | | 18 | 1-1 | Value of limit count | | |
| sum\_current | long | | | 18 | 1-1 | Current limit value | | |
| currency | string | | | 3 | 1-1 | Limit currency | | |
| next\_date | date | | |  | 0-1 | Next cycle date | | |
| length\_type | string | | | 8 | 0-1 | Date calculation unit (Year, Month, Week, Day) | | |
| cycle\_length | int | | | 4 | 0-1 | Cycle length in defined units | | |
| limit\_usage | string | | | 8 | 0-1 | Limit usage | | |
| address | | | | | | | |
| address\_type | string | | | 8 | 1-1 | | Address purpose: business, legal, home, delivery. Value from dictionary ADTP. |
| Country | string | | | 3 | 1-1 | | Numeric ISO country code. ISO Dictionary value. |
| address\_name | complex | | |  | 1-1 | | Address text data which could be provided as multilingual. Should contain an attribute LANGUAGE to display language in which the data is. |
| House | string | | | 200 | 1-1 | | House number |
| apartment | string | | | 200 | 0-1 | | Office or apartment number |
| postal\_code | string | | | 5-10 | 0-1 | | Postal code |
| place\_code | string | | | 200 | 0-1 | | Place code |
| region\_code | string | | | 8 | 0-1 | | Region code |
| latitude | float | | | 10 | 0-1 | | Location coordinates – latitude (N) |
| longitude | float | | | 10 | 0-1 | | Location coordinates – longitude (W) |
| flexible\_data | complex | | |  | 0-\* | | Flexible data |
|  |  | | |  |  | |  |
| address\_name |  | | |  |  | |  |
| region | string | | | 200 | 0-1 | | Country region (State, Province) |
| city | string | | | 200 | 1-1 | | City |
| street | string | | | 200 | 1-1 | | Street |
| personalization\_info | | | | | | | |
| pin\_request | string | | | 64 | 1-1 | | Request to generate PIN. Value from PNRQ dictionary. |
| Pin\_mailer\_request | string | | | 64 | 1-1 | | Request to print PIN mailer. Value from PMRQ dictionary. |
| Embossing\_request | string | | | 64 | 1-1 | | Request to personalize a payment token. Value from EMRQ dictionary. |
| Perso\_priority | string | | | 64 | 0-1 | | Personalization priority. Value from PRSP dictionary. |
| Perso\_batch\_id | int | | | 8 | 0-1 | | Batch identifier. |
| Notification | | | | | | | |
| service\_id | long | | | 16 | 1-1 | | Service identifier. |
| Service\_number | string | | | 200 | 1-1 | | Service number. |
| Start\_date | date | | |  | 0-1 | | Start date of contact activity period. The date include the date and time. |
| End\_date | date | | |  | 0-1 | | End date of contact activity period. The date include the date and time. |
| Notification\_event | string | | | 8 | 1-1 | | A notification event the settings passed relate to. If not set then settings will used for all events. |
| Delivery\_channel | int | | | 4 | 1-1 | | A method of notification delivery. Values are taken from dictionary. |
| Delivery\_address | string | | | 200 | 1-1 | | An address of notification delivery according to a method. |
| Is\_active | int | | | 1 | 1-1 | | Indicates whether a notification is active or not. |
| **Service** | | | | | | | | |
| service\_type | string | | | 8 | 1-1 | | Service type | |
| service\_type\_name | string | | | 200 | 1-1 | | Service name | |
| service\_external\_code | string | | | 200 | 0-1 | | Service external code | |
| service\_number | string | | | 200 | 0-1 | | Service number | |
| is\_active | int | | | 1 | 1-1 | | Sign of service activity | |
| service\_attribute | complex | | |  | 0-\* | | Attribute of service | |
| **service\_attribute** | | | | | | | | |
| service\_attribute\_name | | | string | 200 | 1-1 | | Service attribute name (only for type DTTPCHAR) | |
| service\_attribute\_value | | | string | 200 | 0-1 | | Service attribute value | |
| **flexible\_data** | | | | | | | | |
| field\_name | | string | | 200 | 1-1 | | Name of flexible field | |
| field\_value | | string | | 200 | 1-1 | | Value of flexible field | |
| **stop\_list\_event** | |  | |  |  | |  | |
| event\_type | | string | | 8 | 0-1 | | Event type associated with a stop list event (dictionary value) | |
| stop\_list\_type | | string | | 8 | 0-1 | | Type of stop list (dictionary value) | |
| purge\_date | | date | |  | 0-1 | | Purge date | |
| region\_list | | string | | 200 | 0-1 | | List of regions for a stop list | |
| product | | string | | 8 | 0-1 | | MasterCard Product Identifier | |

CARDS\_INFO

Root tag of file.

FILE\_TYPE

File type code. Constant FLTPCINF – SVXP card\_info format.

INST\_ID

Institution of cards in file (ID or Number).

TOKENIZED\_PAN

Tokenized PAN downloading:

1 – PANs are tokenized  
0 – PANs are clean

CARD\_INFO

Encapsulates all information about one card

CARD\_NUMBER

Card number (PAN)

CARD\_MASK

Masked card number

CARD\_ID

Internal card identifier

CARD\_ISS\_DATE

Card’s issuing date.

**CARD\_START\_DATE**

Card’s activation date.

EXPIRATION\_DATE

Expiration date of card. A day part of this date does not matter.

INSTANCE\_ID

Identifier of card instance.

PRECEDING\_INSTANCE\_ID

Preceding identifier of card instance.

**SEQUENTIAL\_NUMBER**

Serial number of plastic.

**CARD\_STATUS**

Card status. It is an article of dictionary CSTS.

CATEGORY

Category of card. Dictionary value.

| Code | Description |
| --- | --- |
| CRCG0200 | Undefined |
| CRCG0400 | Suplementary |
| CRCG0600 | Double |
| CRCG0800 | Primary |

**PVV**

PIN verification value.

**PIN\_OFFSET**

PIN offset value.

**PIN\_UPDATE\_FLAG**

PIN update flag should be set to 1 (true) for each new card and card with reissued PIN. Otherwise, it is set to 0 (false).

**CARD\_TYPE\_ID**

Internal card type indentifier in the system.

**PREV\_CARD\_NUMBER**

Old card’s number.

**PREV\_CARD\_ID**

Old Internal card instance identifier (UID).

**AGENT\_NUMBER**

Agent (branch bank) external number. This parameter is optional and should be used as an alternative for AGENT\_ID. If bank does not use by agents customer division then the default value will be set automatically.

**PRODUCT\_NUMBER**

Product external number. If this external number is not defined for contract’s product then internal product’s identifier will be returned instead of it.

ADDRESS

Cardholder’s address block.

PERSONALIZATION\_INFO

Miscellaneous data for personalization system.

COMPANY\_NAME

Company name for corporate cards.

SERVICE\_CODE

Service code according to ISO/IEC 7813.

SEC\_WORD

The code word for the cardholder identification on call-center call.

**SECRET\_QUESTION**

Secret question to identify the cardholder. Possible value store in dictionary SEQU.

**SECRET\_ANSWER**

Secret answer to the question.

CUSTOMER

Encapsulates all information about card’s customer

CUSTOMER\_NUMBER

Unique customer number

CUSTOMER\_CATEGORY

Customer category. Dictionary value.

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

CUSTOMER\_RELATION

Relation between institute and customer. Dictionary value.

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

RESIDENT

1 – customer is resident of institution country  
0 – not resident

NATIONALITY

Country code of nationality of customer

CREDIT\_RATING

Credit rating. Dictionary value.

| Code | Description |
| --- | --- |
| CRDR0001 | Category I |
| CRDR0002 | Category II |
| CRDR0003 | Category III |
| CRDR0004 | Category IV |
| CRDR0005 | Category V |

MONEY\_LAUNDRY\_RISK

Money laundry risk. Dictionary value.

| Code | Description |
| --- | --- |
| MOLR0001 | Low |
| MOLR0002 | High |

MONEY\_LAUNDRY\_REASON

Reason of money laundry risk. Dictionary value.

| Code | Description |
| --- | --- |
| MLRS0001 | No reasons |

CARDHOLDER

Encapsulates all information about cardholder of card

CARDHOLDER\_NUMBER

Unique number of cardholder.

CARDHOLDER\_NAME

Cardholder embossed name.

PERSON

Contains information about person of cardholder

PERSON\_TITLE

Person title. Dictionary value.

| Code | Description |
| --- | --- |
| PTTLDCTR | Dr |
| PTTLLADY |  |
| PTTLMRSS | Mrs |
| PTTLMSTR | Mr |
| PTTLSIR | Sir |

SUFFIX

Suffix of person. Dictionary value.

| Code | Description |
| --- | --- |
| PSFXESQR | Esqr. |
| PSFXFRST | I |
| PSFXFRTH | IV |
| PSFXJUNR | Jr. |
| PSFXSCND | II |
| PSFXSENR | Sr. |
| PSFXTHRD | III |

BIRTHDAY

Birthday

PLACE\_OF\_BIRTH

Place of birth

GENDER

Person’s gender

| Code | Description |
| --- | --- |
| GNDRFEML | Female |
| GNDRMALE | Male |

PERSON\_NAME

Encapsulates information about name of person. Tag must to have attribute language with dictionary value which language used for name

SURNAME

Surname of person

FIRST\_NAME

First name of person

SECOND\_NAME

Second name of person

IDENTITY\_CARD

Contains information about identifying documents of person

ID\_TYPE

Type of identity card. Dictionary value.

| Code | Description |
| --- | --- |
| IDTP0001 | Passport |
| IDTP0002 | Foreign passport |
| IDTP0003 | Military certificate |
| IDTP0004 | Sailor certificate |
| IDTP0005 | Army officer certificate |
| IDTP0006 | Citizen temporary certificate |
| IDTP0010 | Taxpayer ID |
| IDTP0011 | Main state registration number |
| IDTP0012 | Bank Identification Code |
| IDTP0013 | Foreign Organization Code |
| IDTP0014 | License |
| IDTP0015 | KPP |
| IDTP0016 | OKPO |
| IDTP0020 | Driver license |
| IDTP0030 | Social insurance |
| IDTP0040 | Passport (Foreign citizen) |
| IDTP0041 | Migratory card (Foreign citizen) |
| IDTP0042 | Permanent resident card (Foreign citizen) |
| IDTP0043 | Temporary residence permit (Foreign citizen) |
| IDTP0044 | Visa (Foreign citizen) |
| IDTP0045 | National ID |

ID\_SERIES

Series of identity card.

ID\_NUMBER

Number of identity card.

ID\_ISSUER

Identity card’s issuer name

ID\_ISSUE\_DATE

Date of issuing

ID\_EXPIRE\_DATE

Date of expiring

ID\_DESC

Description

ACCOUNT

Encapsulates all information about card’s connected account

ACCOUNT\_NUMBER

Account number

CURRENCY

Currency code of account

ACCOUNT\_TYPE

Type of account. Value from ACTP dictionary.

| Code | Description |
| --- | --- |
| ACTP0100 | Card account |
| ACTP0110 | Savings account |
| ACTP0120 | Checking account |
| ACTP0130 | Credit account |
| ACTP0200 | Merchant account |
| ACTP0210 | ATM account |
| ACTP0220 | Cashier account |
| ACTP0300 | Fees |
| ACTP0301 | Payment transit account |
| ACTP0302 | Pending settlement account |
| ACTP0303 | Bank liabilities on other operations |
| ACTP1401 | Payment provider deposit account |
| ACTP1402 | Payment aggregator transit account |
| ACTPLOYT | Loyalty account |

ACCOUNT\_STATUS

Current status of account.

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

**ACCOUNT\_SEQ\_NUMBER**

Account sequential number in relation to associated entity object (card).

PRECEDING\_INSTANCE

This group of tags contains information about preceding card instances. Preceding instance block contains all simple tags which is contains in card info block (card\_number, card\_mask, card\_id, expiration\_date, instance\_id, preceding\_instance\_id), but instance\_id in praceding instance block is mandatory.

REISSUE\_REASON

Reason of card reissuance. Dictionary value from EVNT dictionary.

LIMITS

This complex tag contains data about card’s limits.

ADDRESS

This group of tags contains information about cardholder’s post address.

**ADDRESS\_TYPE**

Address type that describes the purpose of this address and the method of use. It is filled from the dictionary, which can be expanded by adding new values.

| 1. **Code** | 1. **Description** |
| --- | --- |
| ADTPBSNA | Business Address |
| ADTPHOME | Home Address |
| ADTPLGLA | Legal seat |
| ADTPSTDL | Billing delivery address |

**COUNTRY**

Numeric ISO country code.

**ADDRESS\_NAME**

Multi-language complex tag that combines the address parameters that can be presented in different languages. This tag can be repeated within the same address several times in different languages. It requires the LANGUAGE attribute with the possible values.

**REGION**

Region address (state, district, county, Republic, etc.) in the language that was specified in the attributes of the ADDRESS\_NAME parent tag.

**CITY**

City or village name in the language that was specified in the attributes of the ADDRESS\_NAME parent tag.

**STREET**

Street in the language that was specified in the attributes of the ADDRESS\_NAME parent tag.

**HOUSE**

House number.

**APARTMENT**

Room apartment or office.

**POSTAL\_CODE**

ZIP code.

**PLACE\_CODE**

Place code.

**REGION\_CODE**

Area code. Either the addresses qualifier code.

**LATITUDE**

Location coordinates – latitude (N). It is represented by a float value in range: [‑999.9999999; +999.9999999].

**LONGITUDE**

Location coordinates – longitude (W). It is represented by a float value in range: [‑999.9999999; +999.9999999].

PERSONALIZATION\_INFO

This complex tag contains data for the personalization system, e.g. requests to generate PIN, print PIN mailer, personalize a plastic card, etc.

**PIN\_REQUEST**

Request to generate a PIN. Dictionary values:

| Code | Description |
| --- | --- |
| PNRQDONT | Don’t generate |
| PNRQGENR | Generate |
| PNRQINHR | Inherit |

**PIN\_MAILER\_REQUEST**

Request to print a PIN mailer. Dictionary values:

| Code | Description |
| --- | --- |
| PMRQDONT | Don’t print |
| PMRQPRNT | Print |

**EMBOSSING\_REQUEST**

Request to personalize a payment token, e.g., a classic plastic card. Dictionary values:

| Code | Description |
| --- | --- |
| EMRQCHIP | Write to chip |
| EMRQDONT | No plastic |
| EMRQEMBS | Plastic embossing |

**PERSO\_PRIORITY**

Priority of personalization request. Dictionary values:

| Code | Description |
| --- | --- |
| PRSP0100 | Express |
| PRSP0500 | Normal |

**PERSO\_BATCH\_ID**

Identifier of the personalization batch.

1. MERCHANT FILE STRUCTURE
   1. Overview

Format is using for export of information about merchants and terminals and entities relating to cards: customers, contracts and accounts.

* 1. References

Format of card information file described by XSD file: svxp\_svfe\_merchant.xsd.

Example of xml document:

svxp\_svfe\_merchant.xml

* 1. 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\_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\_type | string | 8 | 1-1 | An application type. The ‘APTPACQA’ constant indicates the registration of acquiring structure. |
| application\_status | string | 8 | 1-1 | An application status to assign to a newly created application. |
| institution\_id | string | 4 | 1-1 | An institution ID or Number |
| agent\_id | int | 8 | 0-1 | An ID of an agent a contract is going to be associated with. |
| agent\_number | string | 200 | 0-1 | Agent number |
| agent\_name | string | 200 | 0-1 | Agent name |
| customer | complex |  | 1-1 | Combines parameters that describe a customer. |
| 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. |
| contract | complex |  | 1-\* | Combines parameters that describe a contract. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| contract | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| contract\_number | string | 200 | 0-1 | A contract number. |
| merchant | complex |  | 0-\* | Merchant related parameters. |
| Service (with object) | complex |  | 0-\* | A service provided by a bank (institution) with binding to an entity. A value is specified via the VALUE attribute of the tag. |
| account | complex |  | 0-\* | A customer’s personal account. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| merchant | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| merchant\_number | string | 15 | 0-1 | A merchant number to pass to the IPS. |
| merchant\_name | string | 200 | 0-1 | A merchant name that is used in an operation description. It must be specified in English only. |
| merchant\_type | string | 8 | 0-1 | A merchant type. Defines a merchant position in the merchant hierarchy. Values are taken from the dictionary. |
| mcc | string | 4 | 0-1 | Merchant category code. Values are taken from the dictionaries. |
| merchant\_status | string | 8 | 0-1 | A merchant status. Values are taken from the dictionary. |
| status\_reason | string | 8 | 0-1 | Last status change reason |
| partner\_id\_code | string | 6 | 0-1 | MIR Loyalty Program Partner ID |
| mc\_assigned\_id | string | 6 | 0-1 | MasterCard Assigned ID |
| contact | complex |  | 0-\* | Contact information. |
| address | complex |  | 0-\* | Location address. |
| service | complex |  | 0-\* | Services of merchant |
| merchant\_card | complex |  | 0-\* | Merchants PANs for mVisa and MC QR. |
| flexible\_data | complex |  | 0-\* | Flexible field block |
| 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. |
| contact\_data | complex |  | 1-\* | Contact information. |
| 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. |
| 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 |
| address\_id | long | 8 | 0-1 | Address identificator |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| address\_name | | | | |
| region | string | 200 | 0-1 | Country region (region, state, republic). |
| city | string | 200 | 1-1 | City. |
| street | string | 200 | 1-1 | Street. |
| service | | | | |
| service\_type | string | 8 | 1-1 | Service type |
| service\_type\_name | string | 200 | 1-1 | Service name |
| service\_external\_code | string | 200 | 0-1 | Service external code |
| service\_number | string | 200 | 0-1 | Service number |
| is\_active | int | 1 | 1-1 | Sign of service activity |
| service\_attribute | complex |  | 0-\* | Attribute of service |
| service\_attribute | | | | |
| service\_attribute\_name | string | 200 | 1-1 | Service attribute name (only for type DTTPCHAR) |
| service\_attribute\_value | string | 200 | 0-1 | Service attribute value |
| merchant\_card | | | | |
| card\_number | string | 26 | 1-1 | Card number linked with merchant |
| sequential\_number | int | 4 | 0-1 | Sequential number of a plastic (card instance) |
| service\_with\_object | | | | |
| service\_object | complex |  | 0-\* | Contains a reference to an associated entity (**account**, **merchant**, **terminal**). The reference to a respective tag is specified as a value of the REF\_ID attribute. |
| service\_object | | | | |
| attribute\_limit | complex |  | 0-\* | Object related service terms that differ from the ones defined on a product level. |
| attribute\_limit | | | | |
| limit\_type | string | 8 | 1-1 | Limit type |
| limit\_sum\_value | long | 18 | 1-1 | Value of limit sum |
| limit\_count\_value | long | 18 | 1-1 | Value of limit count |
| sum\_current | long | 18 | 1-1 | Current limit value |
| currency | string | 3 | 1-1 | Limit currency |
| length\_type | string | 8 | 0-1 | Date calculation unit (Year, Month, Week, Day) |
| cycle\_length | int | 4 | 0-1 | Cycle length in defined units |
| account | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| account\_type | string | 8 | 0-1 | An account type: Default, Savings, Credit, etc. Values are taken from the dictionary. |
| account\_number | string | 200 | 0-1 | An account number. |
| currency | string | 3 | 0-1 | Account currency. |
| account\_status | string | 8 | 0-1 | An account status. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| flexible\_data | | | | |
| field\_name | string | 200 | 1-1 | Unique flexible field system name |
| field\_value | string | 200 | 1-1 | Flexible field value |

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 |
| --- | --- |
| APTPACQA | Acquiring 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 |
| APST0003 | Awaiting correction |
| APST0004 | Awaiting checking |
| APST0005 | Further information requested |
| 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 |
| --- | --- |
| 2001 | Create new acquiring customer |
| 2002 | Open new acquiring account |
| 2003 | Add new merchant to acquiring hierarchy |
| 2004 | Add new terminal |
| 2005 | Activate additional service |
| 2006 | Deactivate additional service |
| 2007 | Close terminal |
| 2008 | Merchant closure |
| 2009 | Close acquiring account |
| 2010 | Banking terminals registration |
| 2011 | Banking merchant registration |
| 2012 | Add new ATM |
| 2013 | Change acquiring customer |
| 2014 | Change merchant data |
| 2015 | Change terminal data |
| 2018 | Change acquiring account status |

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 or Number of an institution to open a service contract in.

AGENT\_ID

An ID of an agent that serves as a bank branch to open a service contract in. The default agent is used, if the bank does not deliver multiple branches for its customers.

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 | |

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.

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 |
| --- | --- |
| CNTPMRCM | Merchant acquiring |

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.

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.

MERCHANT

It describes parameters of a merchant. The tag may be nested, if a hierarchy of merchants is used.

MERCHANT\_NUMBER

A unique number of a merchant in the scope of an institution. The number is passed to the IPS as a unique ID of the merchant together with a BIN of the institution. If the number is not specified in an application explicitly, it may be generated automatically according to a naming format adjusted in the system.

MERCHANT\_NAME

A name of a merchant in English that is used in reports and receipts.

MERCHANT\_TYPE

It defines a position of a merchant in a hierarchy. The hierarchy is configured in the system preliminarily. Each merchant intended to be created must adhere to the pre-configured structure of types. Merchant types may be configured for any institution separately, no limits for quantity of values or combinations.

MCC

Merchant category code. It defines a business sphere of a merchant as well as goods and services it provides. The MMC is used as a parameter to process operations, calculate fees, adjust fraud rules, etc.

MERCHANT\_STATUS

It defines whether a merchant is active or not to accept cards.

PARTNER\_ID\_CODE

MIR Loyalty Program Partner ID.

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\_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

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 – Account type”.

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 |

1. TERMINAL FILE STRUCTURE
   1. Overview

Format is using for export of information about merchants and terminals and entities relating to cards: customers, contracts and accounts.

* 1. References

Format of card information file described by XSD file: svxp\_svfe\_terminal.xsd.

Example of xml document:

svxp\_svfe\_terminal.xml

* 1. 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\_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\_type | string | 8 | 1-1 | An application type. The ‘APTPACQA’ constant indicates the registration of acquiring structure. |
| application\_status | string | 8 | 1-1 | An application status to assign to a newly created application. |
| status\_reason | string | 8 | 0-1 | Last status change reason |
| institution\_id | string | 4 | 1-1 | An institution ID or Number |
| agent\_id | int | 8 | 0-1 | An ID of an agent a contract is going to be associated with. |
| agent\_number | string | 200 | 0-1 | Agent number |
| agent\_name | string | 200 | 0-1 | Agent name |
| customer | complex |  | 1-1 | Combines parameters that describe a customer. |
| 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. |
| contract | complex |  | 1-\* | Combines parameters that describe a contract. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| contract | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| contract\_number | string | 200 | 0-1 | A contract number. |
| merchant | complex |  | 0-\* | Merchant related parameters. |
| service (with object) | complex |  | 0-\* | A service provided by a bank (institution) with binding to an entity. A value is specified via the VALUE attribute of the tag. |
| account | complex |  | 0-\* | A customer’s personal account. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| merchant | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| merchant\_number | string | 15 | 0-1 | A merchant number to pass to the IPS. |
| terminal | complex |  | 0-\* | Terminal related parameters. |
| terminal | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| terminal\_number | string | 8 | 0-1 | A terminal number. |
| terminal\_type | string | 8 | 0-1 | A terminal type. Values are taken from the dictionary. |
| mcc | string | 4 | 0-1 | Merchant category code. Values are taken from the dictionary. |
| plastic\_number | string | 16-19 | 0-1 | An imprinter number. |
| card\_data\_input\_cap | string | 8 | 0-1 | Available methods of reading the card data. |
| crdh\_auth\_cap | string | 8 | 0-1 | Available methods of cardholder authentication. |
| card\_capture\_cap | string | 8 | 0-1 | Available methods of card capture. |
| term\_operating\_env | string | 8 | 0-1 | Terminal environment. |
| crdh\_data\_present | string | 8 | 0-1 | Cardholder presence. |
| card\_data\_present | string | 8 | 0-1 | Card data presence. |
| card\_data\_input\_mode | string | 8 | 0-1 | Card data input mode. |
| crdh\_auth\_method | string | 8 | 0-1 | A method of cardholder authentication. |
| crdh\_auth\_entity | string | 8 | 0-1 | An entity to use for cardholder authentication. |
| card\_data\_output\_cap | string | 8 | 0-1 | Available methods of card data output. |
| term\_data\_output\_cap | string | 8 | 0-1 | Available methods of terminal data output. |
| pin\_capture\_cap | string | 8 | 0-1 | PIN input capability. |
| cat\_level | string | 8 | 0-1 | A terminal category. |
| terminal\_status | string | 8 | 0-1 | A terminal status. |
| device\_id | int | 8 | 0-1 | An ID of a communication device used by a terminal. |
| gmt\_offset | int | 2 | 0-1 | Time zone offset. |
| is\_mac | int | 1 | 0-1 |  |
| cash\_dispenser\_present | int | 1 | 0-1 | Indicates the cash withdrawal capability. |
| payment\_possibility | int | 1 | 0-1 | Indicates the payment capability. |
| use\_card\_possibility | int | 1 | 0-1 | Indicates the card use capability. |
| cash\_in\_present | int | 1 | 0-1 | Indicates the cash-in capability. |
| available\_network | int | 8 | 0-1 | A reference to the list of available payment networks. |
| available\_operation | int | 8 | 0-1 | A reference to the list of available operations. |
| available\_currency | int | 8 | 0-1 | A reference to the list of available currencies. |
| terminal\_quantity | int | 4 | 0-1 | Number of the same type terminals to create on the basis of respective parameters. |
| instalment\_support | int | 1 | 0-1 | Indicates the instalment support of POS terminal |
| terminal\_profile | int | 9 | 0-1 | FE terminal profile identifier |
| tcp\_ip | complex |  | 0-1 | TCP/IP protocol connection parameters. |
| contact | complex |  | 0-\* | Contact information. |
| encryption | complex |  | 0-3 | Encryption key parameters. |
| atm\_terminal | complex |  | 0-1 | ATM specific parameters. |
| address | complex |  | 0-1 | An address of terminal installation. |
| service | complex |  | 0-\* | Services of terminal |
| acquiring\_redefinition | complex |  | 0-1 | Configuration of acquiring redefinition. |
| flexible\_data | complex |  | 0-\* | Flexible field block |
| tcp\_ip | | | | |
| remote\_address | string | 15 | 1-1 | Remote device address. |
| local\_port | string | 5 | 0-1 | Local port number. |
| remote\_port | string | 5 | 0-1 | Remote device port number. |
| initiator | string | 8 | 1-1 | Initiator of the connection. |
| format | string | 8 | 1-1 | Data transfer format. Define messages length and coding. |
| keep\_alive | int | 1 | 0-1 | Keep connection alive flag. |
| monitor\_connection | int | 1 | 0-1 | Inform the opening / closing the connection. |
| multiple\_connection | int | 1 | 0-1 | Multiple connection allowed (1 - Yes, 0 - No). |
| 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. |
| contact\_data | complex |  | 1-\* | Contact information. |
| 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. |
| encryption | | | | |
| encryption\_key\_type | string | 8 | 1-1 | An encryption key type. Values are taken from the dictionary. |
| encryption\_key\_prefix | string | 50 | 0-1 | An encryption key prefix. |
| encryption\_key | string | 64 | 1-1 | An encryption key. |
| encryption\_key\_length | int | 4 | 1-1 | Encryption key length. |
| encryption\_key\_check\_value | string | 6 | 1-1 | An encryption key check value. |
| pin\_block\_format | string | 8 | 0-1 | Pin-block encryption format |
| atm\_terminal | | | | |
| atm\_type | string | 8 | 0-1 | An ATM type. Values are taken from the dictionary. |
| atm\_model | string | 200 | 0-1 | An ATM model name. |
| serial\_number | string | 200 | 0-1 | An ATM serial number. |
| placement\_type | string | 8 | 0-1 | A placement type. Values are taken from the dictionary. |
| availability\_type | string | 8 | 0-1 | An availability type. Values are taken from the dictionary. |
| operating\_hours | string | 200 | 0-1 | Operating hours. |
| local\_date\_gap | int | 4 | 0-1 | An offset of terminal local time. |
| cassette\_count | int | 1 | 0-1 | A number of cassettes with banknotes. |
| hopper\_count | int | 1 | 0-1 | A number of hoppers with coins. |
| key\_change\_algorithm | string | 8 | 0-1 | A key change algorithm. Values are taken from the dictionary. |
| counter\_sync\_cond | string | 8 | 0-1 | A counter synchronization condition. |
| reject\_disp\_warn | int | 4 | 0-1 | A cassette overfill limit for rejected banknotes. |
| reject\_disp\_min\_warn | int | 4 | 0-1 | A limit to warn of forthcoming cassette overfill for rejected banknotes. |
| disp\_rest\_warn | int | 4 | 0-1 | A limit to warn of the rest in cassettes. |
| receipt\_warn | int | 4 | 0-1 | A limit to warn of the rest of receipts. |
| card\_capture\_warn | int | 4 | 0-1 | A limit to warn of captured cards. |
| note\_max\_count | int | 4 | 0-1 | Max number of banknotes to withdraw. |
| scenario\_id | int | 4 | 0-1 | An ATM scenario ID. |
| manual\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters manually. |
| establ\_conn\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters on establishing the connection. |
| counter\_mismatch\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters if counters won’t match. |
| online\_in\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters online. |
| online\_out\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters on going offline. |
| safe\_close\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters on closing the safe. |
| disp\_error\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters on dispenser error. |
| periodic\_synch | string | 8 | 0-1 | Indicates the possibility to synchronize counters periodically. |
| periodic\_all\_oper | int | 1 | 0-1 | Indicates whether all operations should be counted when periodic synchronization is used. |
| periodic\_oper\_count | int | 4 | 0-1 | Number of performed operations to initiate periodic synchronization. |
| cash\_in\_min\_warn | int | 4 | 0-1 | The lower bound to warn of cash-in cassette overfill. |
| cash\_in\_max\_warn | int | 4 | 0-1 | The upper bound to warn of cash-in cassette overfill. |
| atm\_dispenser | complex |  | 0-\* | Dispenser related parameters. |
| atm\_dispenser | | | | |
| disp\_number | int | 4 | 1-1 | A dispenser ordinal number. |
| face\_value | float |  | 1-1 | A face value of banknotes in a dispenser. |
| currency | string | 3 | 1-1 | Banknote currency. |
| denomination\_id | string | 1 | 0-1 | A denomination ID. |
| dispenser\_type | string | 8 | 1-1 | A dispenser type. Values are taken from the dictionary. |
| 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 |
| address\_id | long | 8 | 0-1 | Address identificator |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| address\_name | | | | |
| region | string | 200 | 0-1 | Country region (region, state, republic). |
| city | string | 200 | 1-1 | City. |
| street | string | 200 | 1-1 | Street. |
| service | | | | |
| service\_type | string | 8 | 1-1 | Service type |
| service\_type\_name | string | 200 | 1-1 | Service name |
| service\_external\_code | string | 200 | 0-1 | Service external code |
| service\_number | string | 200 | 0-1 | Service number |
| is\_active | int | 1 | 1-1 | Sign of service activity |
| service\_attribute | complex |  | 0-\* | Attribute of service |
| service\_attribute | | | | |
| service\_attribute\_name | string | 200 | 1-1 | Service attribute name (only for type DTTPCHAR) |
| service\_attribute\_value | string | 200 | 0-1 | Service attribute value |
| acquiring\_redefinition | | | | |
| purpose\_number | string | 200 | 0-1 | Number of payment purpose. |
| oper\_type | string | 8 | 0-1 | Operation type. Dictionary OPTP. |
| oper\_reason | string | 8 | 0-1 | Operation reason. Dictionary ADJR, PMRS, BLTP, LMTP. |
| mcc | string | 4 | 0-1 | Merchant category code. Values are taken from the dictionary. |
| terminal\_number | string | 200 | 0-1 | A terminal number |
| service\_with\_object | | | | |
| service\_object | complex |  | 0-\* | Contains a reference to an associated entity (**account**, **merchant**, **terminal**). The reference to a respective tag is specified as a value of the REF\_ID attribute. |
| service\_object | | | | |
| attribute\_limit | complex |  | 0-\* | Object related service terms that differ from the ones defined on a product level. |
| attribute\_limit | | | | |
| limit\_type | string | 8 | 1-1 | Limit type |
| limit\_sum\_value | long | 18 | 1-1 | Value of limit sum |
| limit\_count\_value | long | 18 | 1-1 | Value of limit count |
| sum\_current | long | 18 | 1-1 | Current limit value |
| currency | string | 3 | 1-1 | Limit currency |
| length\_type | string | 8 | 0-1 | Date calculation unit (Year, Month, Week, Day) |
| cycle\_length | int | 4 | 0-1 | Cycle length in defined units |
| account | | | | |
| command | string | 8 | 1-1 | An action to perform over an object. |
| account\_type | string | 8 | 0-1 | An account type: Default, Savings, Credit, etc. Values are taken from the dictionary. |
| account\_number | string | 200 | 0-1 | An account number. |
| currency | string | 3 | 0-1 | Account currency. |
| account\_status | string | 8 | 0-1 | An account status. |
| flexible\_data | complex |  | 0-\* | Flexible field data |
| flexible\_data | | | | |
| field\_name | string | 200 | 1-1 | Unique flexible field system name |
| field\_value | string | 200 | 1-1 | Flexible field value |

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 |
| --- | --- |
| APTPACQA | Acquiring 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 |
| APST0003 | Awaiting correction |
| APST0004 | Awaiting checking |
| APST0005 | Further information requested |
| 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 |
| --- | --- |
| 2001 | Create new acquiring customer |
| 2002 | Open new acquiring account |
| 2003 | Add new merchant to acquiring hierarchy |
| 2004 | Add new terminal |
| 2005 | Activate additional service |
| 2006 | Deactivate additional service |
| 2007 | Close terminal |
| 2008 | Merchant closure |
| 2009 | Close acquiring account |
| 2010 | Banking terminals registration |
| 2011 | Banking merchant registration |
| 2012 | Add new ATM |
| 2013 | Change acquiring customer |
| 2014 | Change merchant data |
| 2015 | Change terminal data |
| 2018 | Change acquiring account status |

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 or Number of an institution to open a service contract in.

AGENT\_ID

An ID of an agent that serves as a bank branch to open a service contract in. The default agent is used, if the bank does not deliver multiple branches for its customers.

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 | |

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.

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 |
| --- | --- |
| CNTPMRCM | Merchant acquiring |

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.

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.

MERCHANT

It describes parameters of a merchant. The tag may be nested, if a hierarchy of merchants is used.

MERCHANT\_NUMBER

A unique number of a merchant in the scope of an institution. The number is passed to the IPS as a unique ID of the merchant together with a BIN of the institution. If the number is not specified in an application explicitly, it may be generated automatically according to a naming format adjusted in the system.

MERCHANT\_NAME

A name of a merchant in English that is used in reports and receipts.

MERCHANT\_TYPE

It defines a position of a merchant in a hierarchy. The hierarchy is configured in the system preliminarily. Each merchant intended to be created must adhere to the pre-configured structure of types. Merchant types may be configured for any institution separately, no limits for quantity of values or combinations.

MCC

Merchant category code. It defines a business sphere of a merchant as well as goods and services it provides. The MMC is used as a parameter to process operations, calculate fees, adjust fraud rules, etc.

MERCHANT\_STATUS

It defines whether a merchant is active or not to accept cards.

PARTNER\_ID\_CODE

MIR Loyalty Program Partner ID.

TERMINAL

The tag contains parameters of terminal types. Terminals are associated with merchants according to a merchant hierarchy that is each terminal should be linked to a merchant type, which is configured to have subordinate terminals in the merchant hierarchy.

TERMINAL\_NUMBER

A unique number of a terminal in the scope of an institution. The terminal number may be generated automatically according to a naming format adjusted in the system, if it is not specified explicitly.

TERMINAL\_TYPE

It defines a type of the device registered as a terminal. Some of terminal types, for instance ATM, require specifying the supplementary parameters in additional blocks.

| Code | Description |
| --- | --- |
| TRMT0001 | Imprinter |
| TRMT0002 | |  |  | | --- | --- | |  | ATM | |
| TRMT0003 | POS |
| TRMT0004 | ePOS |
| TRMT0005 | Mobile |
| TRMT0006 | Internet |
| TRMT0007 | Mobile POS |
| TRMT0008 | Info-kiosk |

STANDARD\_ID

A communication standard is used to interact with a terminal. It describes the application layer to interchange messages with a device.

| Code | Description |
| --- | --- |
| 1001 | SVIP-IFX standard |
| 1003 | NCR ATM standard |
| 1006 | Diebold 912 ATM standard |
| 1009 | Wincor Nixdorf NDC standard |
| 1010 | BPC ISO8583 POS |
| 1012 | E-Pay ISO8583 |

VERSION\_ID

The current version of a communication standard that is used by a terminal. The list of versions depends both on a chosen standard and the system-wide settings.

MCC

Merchant category code. It should be specified, if operations run via a terminal must be routed to the network that has an MMC other than the MCC defined on the merchant level.

TERMINAL\_TEMPLATE

An ID of a terminal template. On the terminal being created its parameters without values are filled in with the values defined in the template. The list of templates and their IDs is formed when the system is being configured.

PLASTIC\_NUMBER

An imprinter number printed on the slip. It is meaningful only if an imprinter is used.

CARD\_DATA\_INPUT\_CAP

Available methods to input card data via a terminal:

| Code | Description |
| --- | --- |
| F221000A | |  |  | | --- | --- | |  | PAN auto-entry via contactless magnetic stripe | |
| F221000B | Magnetic stripe reader and key entry capability |
| F221000C | Magnetic stripe reader, ICC, and key entry capability |
| F221000D | Magnetic stripe reader and ICC capability |
| F221000E | ICC and key entry capability |
| F221000M | PAN auto-entry via contactless M/Chip |
| F221000V | |  |  | | --- | --- | |  | Other capability | |
| F2210000 | Unknown; data not available |
| F2210001 | Manual; no terminal |
| F2210002 | Magnetic stripe reader capability |
| F2210003 | Barcode reader |
| F2210004 | Optical character reader (OCR) capability |
| F2210005 | Integrated circuit card (ICC) capability |
| F2210006 | Key entry-only capability |

CRDH\_AUTH\_CAP

Available methods to authenticate a cardholder via a terminal:

| Code | Description |
| --- | --- |
| F2220000 | No electronic authentication capability |
| F2220001 | PIN entry capability |
| F2220002 | Electronic signature analysis capability |
| F2220005 | Electronic authentication capability is inoperative |
| F2220006 | Other |
| F2220009 | Unknown; data unavailable |

CARD\_CAPTURE\_CAP

Available methods to capture a card:

| Code | Description |
| --- | --- |
| F2230000 | No capture capability |
| F2230001 | Card capture capability |
| F2230002 | Unknown; data unavailable |

TERM\_OPERATING\_ENV

Operating environment of a terminal:

| Code | Description |
| --- | --- |
| F2240000 | |  |  | | --- | --- | |  | No terminal used | |
| F2240001 | On card acceptor premises; attended terminal |
| F2240002 | On card acceptor premises; unattended terminal |
| F2240003 | Off card acceptor premises; attended |
| F2240004 | |  |  | | --- | --- | |  | Off card acceptor premises; unattended | |
| F2240005 | On cardholder premises; unattended |
| F2240006 | Off cardholder premises; unattended |
| F2240007 | Private use (Future use) |
| F2240009 | Unknown; data unavailable |

CRDH\_DATA\_PRESENT

Indicator of the cardholder presence:

| Code | Description |
| --- | --- |
| F2250000 | Cardholder present |
| F2250001 | |  |  | | --- | --- | |  | Cardholder not present (unspecified) | |
| F2250002 | Cardholder not present (mail/facsimile transaction) |
| F2250003 | Cardholder not present (phone order or from automated response unit [ARU]) |
| F2250004 | Cardholder not present (standing order/recurring transaction) |
| F2250005 | Cardholder not present (electronic order [PC, Internet, mobile phone or PDA]) |
| F2250009 | |  |  | | --- | --- | |  | Unknown; data unavailable | |

CARD\_DATA\_PRESENT

An indicator of the card presence:

| Code | Description |
| --- | --- |
| F2260000 | Card present |
| F2260001 | Card not present |
| F2260009 | Unknown; data unavailable |

CARD\_DATA\_INPUT\_MODE

A preferred method to input card data via a terminal:

| Code | Description |
| --- | --- |
| F227000A | PAN auto-entry via contactless magnetic stripe |
| F227000B | Magnetic stripe reader input; track data captured and passed unaltered |
| F227000C | Online chip |
| F227000F | Offline chip |
| F227000M | PAN auto-entry via contactless M/Chip |
| F227000N | Contactless input, PayPass mapping service applied |
| F227000S | |  |  | | --- | --- | |  | Electronic commerce | |
| F2270000 | Unspecified; data unavailable |
| F2270001 | Manual input; no terminal |
| F2270002 | |  |  | | --- | --- | |  | Magnetic stripe reader input | |
| F2270003 | Barcode reader |
| F2270005 | Secured electronic commerce, 3D-security |
| F2270006 | Key entered input |
| F2270007 | |  |  | | --- | --- | |  | Electronic commerce, channel encryption | |
| F2270009 | |  |  | | --- | --- | |  | Electronic commerce, cardholder does not participate in security programm | |

CRDH\_AUTH\_METHOD

A preferred method to authenticate a cardholder:

| Code | Description |
| --- | --- |
| F228000S | Other systematic verification |
| F2280000 | Not authenticated |
| F2280001 | PIN |
| F2280002 | Electronic signature analysis |
| F2280005 | Manual signature verification |
| F2280006 | Other manual verification (such as driver's license number) |
| F2280009 | Unknown; data unavailable |

CRDH\_AUTH\_ENTITY

An entity used to authenticate a cardholder:

| Code | Description |
| --- | --- |
| F2290000 | Not authenticated |
| F2290001 | |  |  | | --- | --- | |  | ICC - offline PIN | |
| F2290002 | Card acceptance device (CAD) |
| F2290003 | Authorizing agent - online PIN |
| F2290004 | Merchant/card acceptor - signature |
| F2290005 | |  |  | | --- | --- | |  | Other | |
| F2290006 | Merchant is suspicious |
| F2290009 | Unknown; data unavailable |

CARD\_DATA\_OUTPUT\_CAP

Methods to write card output data.

| Code | Description |
| --- | --- |
| F22A000S | Other |
| F22A0000 | Unknown; data unavailable |
| F22A0001 | None |
| F22A0002 | |  |  | | --- | --- | |  | Magnetic stripe write | |
| F22A0003 | ICC |

TERM\_DATA\_OUTPUT\_CAP

Methods to output data via a terminal.

| Code | Description |
| --- | --- |
| F22B0000 | Unknown; data unavailable |
| F22B0001 | None |
| F22B0002 | Printing capability only |
| F22B0003 | Display capability only |
| F22B0004 | Printing and display capability |

PIN\_CAPTURE\_CAP

Terminal capability to obtain PIN.

| Code | Description |
| --- | --- |
| F22C000A | PIN capture capability 10 characters maximum |
| F22C000B | |  |  | | --- | --- | |  | PIN capture capability 11 characters maximum | |
| F22C000C | |  |  | | --- | --- | |  | PIN capture capability 12 characters maximum | |
| F22C0000 | |  |  | | --- | --- | |  | No PIN capture capability | |
| F22C0001 | |  |  | | --- | --- | |  | Unknown; data unavailable | |
| F22C0002 | |  |  | | --- | --- | |  | Reserved | |
| F22C0003 | |  |  | | --- | --- | |  | Reserved | |
| F22C0004 | PIN capture capability 4 characters maximum |
| F22C0005 | PIN capture capability 5 characters maximum |
| F22C0006 | PIN capture capability 6 characters maximum |
| F22C0007 | |  |  | | --- | --- | |  | PIN capture capability 7 characters maximum | |
| F22C0008 | PIN capture capability 8 characters maximum |
| F22C0009 | PIN capture capability 9 characters maximum |

CAT\_LEVEL

A terminal category.

| Code | Description |
| --- | --- |
| F22D0000 | Transaction is not CAT transaction |
| F22D0001 | Authomated dispensing machine with PIN capture possibility |
| F22D0002 | |  |  | | --- | --- | |  | Self-service terminal | |
| F22D0003 | Terminal with payment amount restriction |
| F22D0004 | |  |  | | --- | --- | |  | Purchasing of good in flight | |
| F22D0005 | |  |  | | --- | --- | |  | Reserved for future usage | |
| F22D0006 | |  |  | | --- | --- | |  | Electronic commerce terminal | |
| F22D0007 | Transponder transaction |
| F22D0009 | Mobile terminal |

TERMINAL\_STATUS

A terminal status.

| Code | Description |
| --- | --- |
| TRMS0001 | Active |
| TRMS0002 | |  |  | | --- | --- | |  | Inactive | |
| TRMS0009 | Terminal closed |

DEVICE\_ID

An ID of a physical network device attached to a terminal. The list of devices is defined when the initial configuration of the system is being performed.

GMT\_OFFSET

A time zone a terminal is physically located in. Possible values are from -13 to +12. The zero values is the GMT*+*0 time zone.

IS\_MAC

It indicates whether a terminal is the MAC device or not. 1 – yes, 0 –no.

CASH\_DISPENSER\_PRESENT

It indicates whether a terminal has cash dispenser or not. 1 – yes, 0 – no. The parameter is used to generalize the device classification and generate reports.

PAYMENT\_POSSIBILITY

It indicates possibility to pay for goods and services via a terminal. 1 – yes, 0 – no. The parameter is used to generalize the device classification and generate reports.

USE\_CARD\_POSSIBILITY

It indicates possibility to use cards via a terminal. 1 – yes, 0 – no. The parameter is used to generalize the device classification and generate reports.

CASH\_IN\_PRESENT

It indicates possibility to accept money via a terminal. 1 – yes, 0 – no. The parameter is used to generalize the device classification and generate reports.

AVAILABLE\_NETWORK

A reference to available payment networks, a terminal may work with. The list of networks is defined when the initial configuration of the system is being performed.

AVAILABLE\_OPERATION

A reference to available operation types, a terminal may work with. The list of operations is defined when the initial configuration of the system is being performed.

AVAILABLE\_CURRENCY

A reference to available currencies, a terminal may work with. The list of currencies is defined when the initial configuration of the system is being performed.

TERMINAL\_QUANTITY

Quantity of the same type terminals to create on the base of terminal-related parameters. If more than one terminal should be created, the respective number of the TERMINAL\_NUMBER parameters may be specified explicitly or left empty to generate terminal numbers automatically.

MCC\_TEMPLATE\_ID

An ID of an MMC redefinition group. The group is created when the initial configuration of the system is being performed.

INSTALMENT\_SUPPORT

Indicates the instalment support of POS terminal.

POS\_BATCH\_SUPPORT

Indicates the POS batch support of POS terminal.

TERMINAL\_PROFILE

Identifier of terminal setting profile in FrontEnd.

PIN\_BLOCK\_FORMAT

Format used on terminal to encrypt PIN-block in oline PIN checking.

| Code | Description |
| --- | --- |
| PNBFANSI | ANSI |
| PNBFDOCL | Docutel |
| PNBFISO1 | ISO 9564-1 format 1 |

ENCRYPTION

It describes parameters of an encryption key configured on the terminal. Depending on a type of a terminal, a number of encryption keys may be adjusted, thus, a number of the ENCRYPTION complex parameters may exist.

ENCRYPTION\_KEY\_TYPE

A type of an encryption key

| Code | Description |
| --- | --- |
| ENKTTAK | Terminal MAC Session Key |
| ENKTTMK | Terminal Master Key |
| ENKTTMKA | Terminal MAC Master Key |
| ENKTTMKP | |  |  | | --- | --- | |  | Terminal PIN Master Key | |
| ENKTTPK | Terminal PIN Session Key |

ENCRYPTION\_KEY\_PREFIX

An encryption key prefix.

ENCRYPTION\_KEY

An encryption key value.

ENCRYPTION\_KEY\_LENGTH

Encryption key length.

ENCRYPTION\_KEY\_CHECK\_VALUE

An encryption key check value.

COMMUN\_PLUGIN

Communication plugin.

| Code | Description |
| --- | --- |
| CMPLTCIP | TCP/IP |
| CMPLHTTP | HTTP |
| CMPLWSRV | Web service |

DEVICE\_NAME

Device name.

TCP\_IP\_PROTOCOL

It describes TCP/IP protocol connection parameters.

REMOTE\_ADDRESS

Remote device address.

LOCAL\_PORT

Local port number.

REMOTE\_PORT

Remote device port number.

INITIATOR

Initiator of the connection.

| Code | Description |
| --- | --- |
| TCPIREMT | Remote initiator |
| TCPIHOST | Host initiator |

FORMAT

Data transfer format. Define messages length and coding.

| Code | Description |
| --- | --- |
| TCPFVISA | VISA communication format |
| TCPFL14S | Link Level 1 |
| TCPFIBIC | 2 bytes length binary (including length of the message) |
| TCPF2L4B | 4 bytes binary length with first 2 bytes only considered |
| TCPF006S | 6 bytes length |
| TCPF004S | 4 bytes length |
| TCPF004B | 4 bytes length binary |
| TCPF002C | Like 002B, but length includes header |
| TCPF002B | 2 bytes length binary |
| TCPF001B | 1 byte binary length |

KEEP\_ALIVE

Keep connection alive flag.

MONITOR\_CONNECTION

Inform the opening / closing the connection.

MULTIPLE\_CONNECTION

Multiple connection allowed (1 - Yes, 0 - No).

ATM\_TERMINAL

The ATM specific parameters. It must be specified only if the terminal type is set to ATM.

ATM\_TYPE

It describes a manufacturer of an ATM as well as communication and configuration standards used by the ATM.

| Code | Description |
| --- | --- |
| ATMT0001 | NCR |
| ATMT0002 | Diebold |
| ATMT0003 | Wincor Nixdorf |
| ATMT0004 | Triton |
| ATMT0005 | Banquit |

ATM\_MODEL

An ATM model.

SERIAL\_NUMBER

A manufacturer serial number.

PLACEMENT\_TYPE

A type of ATM placement.

| Code | Description |
| --- | --- |
| ATMP0001 | Street |
| ATMP0002 | Indoors |

AVAILABILITY\_TYPE

An ATM availability type.

| Code | Description |
| --- | --- |
| ATMA0001 | Public |
| ATMA0002 | VIP |

OPERATING\_HOURS

ATM operating hours. Hours of ATM availability. The parameter is specified in free form.

LOCAL\_DATE\_GAP

A local time gap as compared to time of a processing center server.

CASSETTE\_COUNT

Number of cassettes (dispensers with banknotes) placed into an ATM.

HOPPER\_COUNT

Number of hoppers (dispensers with coins) placed into an ATM.

KEY\_CHANGE\_ALGORITHM

An algorithm of key change.

| Code | Description |
| --- | --- |
| KCHA0001 | |  |  | | --- | --- | |  | Use locally entered B key as master key and current session PIN key | |
| KCHA0002 | |  |  | | --- | --- | |  | Use locally-entered key A as master key for session MAC-key. Use locally-entered key B as master key for session PIN key. | |
| KCHA0003 | Use locally-entered key A as master key for session MAC key and for session PIN key. B is not used. |

COUNTER\_SYNC\_COND

A counter synchronization condition.

REJECT\_DISP\_WARN

A cassette overfill limit to warn of rejected banknotes.

REJECT\_DISP\_MIN\_WARN

A limit to warn of forthcoming cassette overfill for rejected banknotes.

DISP\_REST\_WARN

A limit to warn of the rest in cassettes.

RECEIPT\_WARN

A limit to warn of the rest of receipts.

CARD\_CAPTURE\_WARN

A limit to warn of captured cards.

NOTE\_MAX\_COUNT

Max number of banknotes to withdraw.

SCENARIO\_ID

An ATM scenario ID. Scenarios are defined when the initial configuration of the system is being performed.

MANUAL\_SYNCH

It indicates the possibility to synchronize counters manually. The same dictionary is used for all synchronization methods.

| Code | Description |
| --- | --- |
| ATMS0001 | Not permitted |
| ATMS0002 | |  |  | | --- | --- | |  | Permitted | |
| ATMS0003 | Only verification |

ESTABL\_CONN\_SYNCH

It indicates the possibility to synchronize counters on establishing the connection with an ATM.

COUNTER\_MISMATCH\_SYNCH

It indicates the possibility to synchronize counters if they won’t match.

ONLINE\_IN\_SYNCH

It indicates the possibility to synchronize counters on going online.

ONLINE\_OUT\_SYNCH

It indicates the possibility to synchronize counters on going offline.

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SAFE\_CLOSE\_SYNCH

It indicates the possibility to synchronize counters on closing the safe.

DISP\_ERROR\_SYNCH

It indicates the possibility to synchronize counters on dispenser error.

PERIODIC\_SYNCH

It indicates the possibility to synchronize counters periodically on the base of performed operation counter.

PERIODIC\_ALL\_OPER

It indicates whether all operations should be counted when periodic synchronization is used: 1 – all, 0 – financial only.

PERIODIC\_OPER\_COUNT

Number of operations performed to force the periodic synchronization of ATM counters.

CASH\_IN\_MIN\_WARN

The lower bound to warn of the cash-in cassette overfill.

CASH\_IN\_MAX\_WARN

The upper bound to warn of the cash-in cassette overfill.

ATM\_DISPENSER

It contains the ATM dispenser related parameters. Number of such blocks must coincide with that of dispensers specified in the ATM\_TERMINAL block.

DISP\_NUMBER

A dispenser ordinal number: 1, 2, ... n.

FACE\_VALUE

A face value of banknotes or coins in a dispenser. A value is specified in min units, for instance, cents.

CURRENCY

Currency of banknotes or coins in the dispenser. It is a three digit ISO code.

DENOMINATION\_ID

It is an ID of currency denomination.

DISPENSER\_TYPE

A type of a dispenser:

| Code | Description |
| --- | --- |
| DSTPCASS | |  |  | | --- | --- | |  | Cassette | |
| DSTPHOPP | Hopper |

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\_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

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 – Account type”.

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 |

1. RESPONSE FILE STRUCTURE
   1. Overview

Format is using for response on loading files.

* 1. References

Example of xml document:

svxp\_svfe\_response.xml

* 1. List of elements

| Tag name | Data type | Size | Occurs | Description |
| --- | --- | --- | --- | --- |
| response\_file | | | | |
| file\_type | string | 8 | 1 | Type of incoming file. Describe the purpose of data in file. Dictionary FLTP |
| original\_file\_id | long | 16 | 0-1 | Reference to incoming file. |
| original\_file\_name | string | 200 | 0-1 | Reference to incoming file. |
| proc\_date | date |  | 0-1 | Date of processing the file. |
| error\_code | string | 200 |  | Error code of processing incoming file. |

RESPONSE\_FILE

This is a root element of the response file.

FILE\_TYPE

The element contain type of incoming file.

ORIGINAL\_FILE\_ID

The element contains the identifier of incoming file.

ORIGINAL\_FILE\_NAME

The element contains the name of incoming file.

PROC\_DATE

The element contains the date of processing incoming file.

ERROR\_CODE

The element contains error code of processing incoming file.

1. PERSON FILE STRUCTURE
   1. Overview

Format is using for export of information about persons and identity cards relating to persons.

The direction of the file is OUTGOING.

* 1. References

Format of person information file described by XSD file: svxp\_svfe\_person.xsd

Example of xml document:

svxp\_svfe\_person.xml

* 1. List of elements

| Tag name | Data type | Size | Occurs | Description |
| --- | --- | --- | --- | --- |
| persons | | | | |
| file\_type | string | 8 | 1-1 | File type code. Constant FLTPPINF |
| inst\_id | string | 4 | 1-1 | Institution of person in file |
| person | complex |  | 1-\* | Encapsulates all information about one person |
| person | | | | |
| person\_id | long | 12 | 1-1 | Unique identifier of person in SVBO |
| person\_title | string | 8 | 0-1 | Person title. Dictionary value. |
| person\_name | person\_name |  | 1-1 | Encapsulates information about name of person. Tag must to have attribute language with dictionary value which language used for name |
| suffix | string | 8 | 0-1 | Suffix of person. Dictionary value. |
| birthday | date |  | 0-1 | Birthday |
| place\_of\_birth | string | 200 | 0-1 | Place of birth |
| gender | string | 8 | 0-1 | Person’s gender |
| identity\_card | identity\_card |  | 0-\* | Contains information about identifying documents of person |
| person\_name | | | | |
| surname | string | 200 | 1-1 | Surname |
| first\_name | string | 200 | 1-1 | First name |
| second\_name | string | 200 | 0-1 | Second name |
| identity\_card | | | | |
| id\_type | string | 8 | 1-1 | Type of identity card. Dictionary value IDTP. |
| id\_series | string | 200 | 0-1 | Series of identity card. |
| id\_number | string | 200 | 1-1 | Number of identity card. |
| country | string | 3 | 0-1 | Identification ISO country code where ID is issued |
| id\_issuer | string | 200 | 0-1 | Identity card’s issuer name |
| id\_issue\_date | date |  | 0-1 | Date of issuing |
| id\_expire\_date | date |  | 0-1 | Date of expiring |
| id\_desc | string | 2000 | 0-1 | Description |

1. COMPANY FILE STRUCTURE
   1. Overview

Format is using for export of information about companies and identity cards relating to companies.

The direction of the file is OUTGOING.

* 1. References

Example of xml document:

svxp\_svfe\_company.xml

* 1. List of elements

| Tag name | Data type | Size | Occurs | Description |
| --- | --- | --- | --- | --- |
| companies | | | | |
| file\_type | string | 8 | 1-1 | File type code. Constant FLTPCPIF |
| inst\_id | string | 4 | 1-1 | Institution of company in file |
| company | complex |  | 1-\* | Encapsulates all information about one company |
| company | | | | |
| company\_id | long | 8 | 1-1 | Unique identifier of company in SVBO |
| incorp\_form | string | 8 | 0-1 | A type of an incorporated person: LLC, OJSC, UE, etc. Values are taken from the dictionary INCF |
| company\_name | complex |  | 1-1 | A name of a company. It may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display the name in the proper language |
| identity\_card | complex |  | 0-\* | Company’s ID documents |
| company\_name | | | | |
| company\_short\_name | string | 200 | 1-1 | A contracted name of a company |
| company\_full\_name | string | 200 | 0-1 | The full name of a company |
| identity\_card | | | | |
| id\_type | string | 8 | 1-1 | Type of identity card. Dictionary value IDTP. |
| id\_series | string | 200 | 0-1 | Series of identity card. |
| id\_number | string | 200 | 1-1 | Number of identity card. |
| country | string | 3 | 0-1 | Identification ISO country code where ID is issued |
| id\_issuer | string | 200 | 0-1 | Identity card’s issuer name |
| id\_issue\_date | date |  | 0-1 | Date of issuing |
| id\_expire\_date | date |  | 0-1 | Date of expiring |
| id\_desc | string | 2000 | 0-1 | Description |