SMARTVISTA MAPPING DESCRIPTION

Posting file to SVXP

December 2014

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1. PREFACE
   1. Revision history

| Revision | Date | Author | Details |
| --- | --- | --- | --- |
| 1.0 | 10.12.2014 | Maslov I. | Initial version |
| 1.1 | 16.12.2014 | Maslov I. | Fixed mapping field “Replacement Amounts” and “SVFE Message Type” |

* 1. Document purpose

This document describe mapping of filed form posting file and SVXP standard. This document developed for internal use of BPC.

* 1. Fundamental documents

“STANDARD SMARTVISTA FRONT END POSTING-FILE FORMAT” version 113 form 02.10.2014

“SMARTVISTA EXCHANGE PROTOCOL (SVXP) API developer reference” version 6.21 from 09.12.2014

“STANDARD SMARTVISTA COMMON ALGORITHMS” version 2R321 from 13.01.2012

“SMARTVISTA MAPPING DESCRIPTION SVXP SVFE code mapping” version 1.1 from 15.12.2014

1. Posting File Format

Posting file contain header, body and trailer. Data for svxp contain only in header and body part. Trailer contain Trailer contains a verification data of posting file and in this document is not considered.

* 1. HEADER

Length of header record is 113 or 129 symbols.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Field** | **Position** | **Number bytes** | **Description** | **Picture** | **Value** | **SVXP field/Comment** |
| 1 | 01 | 1 | RECORD TYPE – FILE HEADER | X | “1” |  |
| 2 | 02-03 | 2 | FILLER | X | “01” |  |
| 3 | 04-13 | 10 | FILLER | X | SPACE |  |
| 4 | 14-17 | 4 | INDICATOR | X | Network indicator for which the file was created. (999=bank) |  |
| 5 | 18 | 1 | FILLER | X | SPACE |  |
| 6 | 19-26 | 8 | SETTLEMENT DATE | X | YYYYMMDD | start\_date |
| 7 | 27 | 1 | FILLER | X | SPACE |  |
| 8 | 28-33 | 6 | SETTLEMENT TIME | X | HHMMSS | start\_date |
| 9 | 34 | 1 | FILLER | X | SPACE |  |
| 10 | 35-42 | 8 | FILE CREATION DATE | X | YYYYMMDD |  |
| 11 | 43 | 1 | FILLER | X | SPACE |  |
| 12 | 44-49 | 6 | FILE CREATION TIME | X | HHMMSS |  |
| 13 | 50 | 1 | FILLER | X | SPACE |  |
| 14 | 51-54 | 4 | FILLER | 9 | “0000” |  |
| 15 | 55 | 1 | FILLER | X | “A” |  |
| 16 | 56 | 1 | FILLER | X | SPACE |  |
| 17 | 57-60 | 4 | RECORD SIZE | 9 | 2378 ( actually variable ) |  |
| 18 | 61-62 | 2 | FILLER | X | SPACES |  |
| 19 | 63 | 1 | FILLER | 9 | “1” |  |
| 20 | 64 | 1 | FILLER | X | SPACE |  |
| 21 | 65-68 | 4 | INSTITUTION ID | X |  |  |
| 22 | 69-110 | 42 | FILLER | X | SPACE |  |
| 23 | 111-113 | 3 | POSTING VERSION | X | 1.4 |  |
| 24 | 114 | 1 | FILLER | X | SPACE | optional field |
| 25 | 115-122 | 8 | NEXT SETTLEMENT DATE | X | YYYYMMDD | end\_date  optional field |
| 26 | 123 | 1 | FILLER | X | SPACE | optional field |
| 27 | 124-129 | 6 | NEXT SETTLEMENT TIME | X | HHMMSS | end\_date  optional field |

* 1. Posting File Format Record Layout Definition

Length of body the record determined by field “RECORD SIZE” from header.

| **Field** | **Position** | **Number bytes** | **Description** | **Picture** | **Value / Format** | **SVXP field/Comment** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 01-19 | 19 | PAN | X |  | issuer/card\_number |
| 2 | 20-25 | 6 | Processing Code | 9 |  |  |
| 3 | 26-37 | 12 | Amount, Requested | 9 |  | operation/oper\_amount/amount\_value |
| 4 | 38-49 | 12 | Amount, Account 2 | 9 |  | destination/account\_amount |
| 5 | 50-61 | 12 | Amount, Account 1 | 9 |  | issuer/account\_amount  sttl\_amount/amount\_value |
| 6 | 62-71 | 10 | Transmission Date and Time | 9 | MMDDhhmmss | oper\_date |
| 7 | 72-79 | 8 | FILLER | 9 | ZERO |  |
| 8 | 80-87 | 8 | Conversion Rate Settlement | 9 |  | auth\_data/ network\_cnvt\_rate |
| 9 | 88-95 | 8 | Conversion Rate Cardholder Billing | 9 |  | auth\_data/ bin\_cnvt\_rate |
| 10 | 96-101 | 6 | System Trace Audit Number | 9 |  |  |
| 11 | 102-110 | 9 | Universal Transaction Number | 9 |  | auth\_data/external\_auth\_id |
| 12 | 111 | 1 | Reversal Flag | 9 |  | is\_reversal |
| 13 | 112-120 | 9 | SVFE Trace number | 9 |  | auth\_data/trace\_number |
| 14 | 121-124 | 4 | SVFE Message Type | 9 |  | operation/msg\_type |
| 15 | 125 | 1 | Phase | 9 |  |  |
| 16 | 126-131 | 6 | SVFE System Time | 9 | hhmmss | host\_date |
| 17 | 132-135 | 4 | SVFE System Date | 9 | MMDD | host\_date |
| 18 | 136-141 | 6 | Date, Expiration | 9 | YYYYMM | issuer/card\_expir\_date |
| 19 | 142-149 | 8 | Date, Settlement –acquirer | 9 | YYYYMMDD |  |
| 20 | 150-155 | 6 | Time, Settlement –acquirer | 9 | hhmmss |  |
| 21 | 156-163 | 8 | Date, Settlement –issuer | 9 | YYYYMMDD | operation/sttl\_date |
| 22 | 164-169 | 6 | Time, Settlement –issuer | 9 | hhmmss | operation/sttl\_date |
| 23 | 170-173 | 4 | Date, Conversion – Card Network | 9 | MMDD | auth\_data/ network\_cnvt\_date |
| 24 | 174-181 | 8 | Date, Conversion – Cardholder Billing | 9 | MMDDhhmm |  |
| 25 | 182-185 | 4 | FILLER | 9 | ZERO |  |
| 26 | 186-189 | 4 | Merchant’s Type | 9 |  | mcc |
| 27 | 190-192 | 3 | Acquiring Institution Country Code | 9 |  |  |
| 28 | 193-195 | 3 | FILLER | 9 | ZERO |  |
| 29 | 196-198 | 3 | FILLER | 9 | ZERO |  |
| 30 | 199-201 | 3 | Point-of-Service Entry Mode | 9 |  | auth\_data/ pos\_entry\_mode |
| 31 | 202-204 | 3 | Card Sequence Number | 9 |  | issuer/card\_seq\_number |
| 32 | 205-207 | 3 | Network International Identifier | 9 | Not used |  |
| 33 | 208-209 | 2 | Point-of-Service Condition Code | 9 |  | auth\_data/ pos\_cond\_code |
| 34 | 210-211 | 2 | Not used | 9 | Zero filled |  |
| 35 | 212-219 | 8 | Amount, Transaction Fee | 9 |  | oper\_surcharge\_amount/amount\_value |
| 36 | 220-227 | 8 | Amount, Transaction Fee | 9 |  | additional\_amount/amount\_value |
| 37 | 228-235 | 8 | FILLER | 9 | ZERO |  |
| 38 | 236-243 | 8 | FILLER | 9 | ZERO |  |
| 39 | 244-254 | 11 | Acquiring Institution Identification Code | X |  | acq\_inst\_bin |
| 40 | 255-265 | 11 | Forwarding Institution Identification Code | X |  |  |
| 41.1 | 266-273 | 8 | FILLER | X | SPACE |  |
| 41.2 | 274-293 | 20 | Network Reference Number | X |  | network\_refnum |
| 42 | 294-305 | 12 | Retrieval Reference Number | X |  | originator\_refnum |
| 43 | 306-311 | 6 | Authorization Identification Response | X |  | issuer/auth\_code |
| 44 | 312-313 | 2 | Response Code | X |  | auth\_data/status\_reason |
| 45 | 314-316 | 3 | Account 2 Type | X |  |  |
| 46 | 317-332 | 16 | Card Acceptor Terminal Identification | X | an (alphanumeric) | terminal\_number |
| 47 | 333-347 | 15 | Card Acceptor Identification Code | X |  | merchant\_number |
| 48 | 348-378 | 31 | Card Acceptor Name | X |  | merchant\_name |
| 49 | 379-409 | 31 | Card Acceptor Street | X |  | merchant\_street |
| 50 | 410-440 | 31 | Card Acceptor City | X |  | merchant\_city |
| 51 | 441-455 | 15 | Card Acceptor State | X |  | merchant\_region |
| 52 | 456-470 | 15 | Card Acceptor Country | X | This field contains the two-letter or tree-letter country code as defined in ISO 3166. | merchant\_country |
| 53 | 471-485 | 15 | Card Acceptor Postal Code | X |  | merchant\_postcode |
| 54 | 486-510 | 25 | Additional Response Data | X |  | auth\_data/ addr\_verif\_result |
| 55 | 511-513 | 3 | Currency Code Transaction | 9 |  | oper\_amount/currency  oper\_surcharge\_amount /currency |
| 56 | 514-516 | 3 | Currency Code Settlement | X |  | sttl\_amount/currency  destination/ currency |
| 57 | 517-519 | 3 | Currency Code Cardholder Billing | 9 |  | issuer/account\_currency |
| 58 | 520-639 | 120 | Additional Amounts | X |  | auth\_data/amounts |
| 59 | 640-642 | 3 | Network Management Information Code | 9 |  |  |
| 60 | 643-654 | 12 | Not used | X | SPACE |  |
| 61 | 655-684 | 30 | Original Data Elements | 9 |  |  |
| 62 | 685-726 | 42 | Replacement Amounts | X |  | oper\_replacement\_amount/amount\_value |
| 63 | 727-737 | 11 | Receiving Institution Identification Code | 9 | left justified, blank filled |  |
| 64.1 | 738-753 | 16 | FILLER | X | SPACE |  |
| 64.2 | 754 | 1 | FILLER | X | '=' |  |
| 64.3 | 755-758 | 4 | FILLER | X | SPACE |  |
| 64.4 | 759-761 | 3 | Service Code | 9 |  | auth\_data/service\_code |
| 64.5 | 762-774 | 13 | FILLER | X | SPACE |  |
| 65.1 | 775-777 | 3 | SVFE Transaction Type | 9 |  | oper\_type |
| 65.2 | 778 | 1 | SVFE Account 1 Type | 9 |  | issuer/account\_type |
| 65.3 | 779 | 1 | SVFE Account 2 Type | 9 |  | destination/account\_type |
| 66 | 780-782 | 3 | SVFE Response Code | 9 |  | response\_code |
| 67 | 783-785 | 3 | ATM Response Code | 9 |  | operation/status |
| 68 | 786-809 | 24 | Account 1 Number | X | left justified, blank filled | issuer/account\_number |
| 69 | 810-833 | 24 | Account 2 Number | X | left justified, blank filled | dectination/account\_number |
| 70 | 834-838 | 5 | FILLER | 9 | SPACE |  |
| 71 | 839 | 1 | CVV2 Result Code | X |  | auth\_data/cvv2\_result |
| 72 | 840-855 | 16 | Additional Merchant Identifier | X | an (alphanumeric) Left Justified | If position 333-347 empty save this value to merchant\_number |
| 73 | 856-861 | 6 | Store Number | 9 | left justified, blank filled |  |
| 74 | 862-873 | 12 | Actual Transaction Amount | 9 |  | oper\_amount/amount\_value |
| 75 | 874-878 | 5 | Terminal Type | X | Possible Values:  POS  ATM  VOICE  EPOS | terminal\_type |
| 76 | 879 | 1 | Completion Status | 9 | 0 = Suspect  1= Completed | auth\_data/ is\_completed |
| 77 | 880 | 1 | Stood-In For | 9 | 0 = SVFE sent to the issuer successfully for authorization  1 = SVFE authorized the transaction (stood in for the issuer) |  |
| 78 | 881 | 1 | Issuer Posted | 9 | 0 = The transaction has not been posted to the issuer (still on SVFE’s stand-in list for an on-line host).  1 = SVFE posted the transaction to the issuer. |  |
| 79 | 882-883 | 2 | Action Code | X | NO= no action  DR= debit  CR= credit |  |
| 80 | 884-889 | 6 | Device Sequence Number | 9 |  |  |
| 81 | 890-900 | 11 | Issuing Institution Identification Code | X |  | issuer/inst\_id |
| 82 | 901-912 | 12 | Acquiring Institution Identification Code | X |  | acquirer/inst\_id |
| 83 | 913-915 | 3 | Card Type | 9 | 001 = Us-on-Us  002 = Network-on-Us  003 = Us-on-Network  004 = Network-to-Network | sttl\_type |
| 84 | 916 | 1 |  | X | ‘P’- pin based transaction  ‘S’ – signature | auth\_data/pin\_presence |
| 85 | 917-928 | 12 | POS Data code | X |  | card\_data\_input\_cap  crdh\_auth\_cap  card\_capture\_cap  terminal\_operating\_env  crdh\_presence  card\_presence  card\_data\_input\_mode  crdh\_auth\_method  crdh\_auth\_entity  card\_data\_output\_cap  terminal\_output\_cap  pin\_capture\_cap  Detailed mapping describe in document “SVXP SVFE code mapping.docx” |
| 86 | 929-1178 | 250 | Additional Data | X |  | auth\_data/addl\_data  If field “SVFE Transaction Type” contain values 672, 493, 782 then required get value from position 9-10 and map by chapter “CARD TYPE STATUS” from document “SVXP SVFE code mapping.docx”.  Result svbo2 status code required put into field “oper\_reason” |
| 87 | 1179-3978 | 0..2800 | BER-TLV Data | X | This field not filled to the end. It contain only transaction data and ended with EOS.  If this field absent EOS will be after previous element ends.  Field Data encoded accordingly to BER-TLV principles.  Available tags see section Field 87. |  |

* + 1. Field 87

| **Tag** | **Length** | **Tag name** | **Picture** | **Comment / format** | **SVXP field/Comment** |
| --- | --- | --- | --- | --- | --- |
| DF801C | 8 | Birth date, YYYYMMDD | 9 | For P2p |  |
| DF8020 | 64 | Address Line 1 | X | For P2P, address of the debited card cardholder  For money transfer, address of sender | auth\_data/ auth\_tag/ tag\_value  tag\_id = 30 |
| DF8025 | 3 | Country | X | For P2P, country of the debited card cardholder  For money transfer, country of sender | auth\_data/ auth\_tag/ tag\_value  tag\_id = 33 |
| DF8026 | 12 | Postal/Zip Code | X | For P2P, postal code of the debited card cardholder  For money transfer, postal code of sender | auth\_data/ auth\_tag/ tag\_value  tag\_id = 34 |
| DF8029 | 16 | Mobile Phone | X |  | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8029 |
| DF8036 | Var | Account status | X | Should be present for 471 transactions. This field should be filled with SVBO account status | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8036 |
| DF8042 | 26 | Embossed name of the Cardholder | X | For P2P, name of the debited card cardholder  For money transfer, sender name | auth\_data/ auth\_tag/ tag\_value  tag\_id = 13 |
| DF824C | 32 | Issuer Account | X | Cardholder Account used in operation | issuer/account\_number |
| DF824D | 32 | Issuer Account#2 | X | Cardholder Account#2 used in operation | dectination/account\_number |
| DF824E | 1200 | EMV data | X | Hexadecimal presentation of EMV data | auth\_data/emv\_data |
| DF8347 | 8 | Service Number | X |  | payment\_order/payment\_order\_number |
| DF8402 | 32 | User entered data | X | User Entered Data on terminal (for ATM buffer\_b) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8402 |
| DF8403 | 32 | User Entered Data Additiononal | X | User Entered Data Additiononal on terminal (for ATM buffer\_c) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8403 |
| DF840F | 12 | SVFE Cashback Amount for POSPWC/ EPOSPWC transactions | 9 |  | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF840F |
| DF8411 | 1 | Chip Condition Code | 9 |  | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8411 |
| DF8423 | 12 | Acq Switch Date and Time if this information was send by Network, else SVFE System Date and Time | 9 | YYMMDDhhmmss | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8423 |
| DF8424 | 291 | Payment Parameters Data | X | See page 38. | payment\_order/payment\_parameter |
| DF843A | 33 | PAN Mapping File Information | X | MasterCard DE48 SE33 | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF843A |
| DF843E | 12 | Acq fee in BIN currency | 9 | For Visa, Mandatory Changes 09.1 | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF843E |
| DF8464 | 17 | ISS fee amount, partial | X | Issuer fee amount block.  Format: FAxxSnnnnnnnnnnnn where xx – fee algorithm id, , S – fee sign (C – fee credit account, D – fee debit account). nnnnnnnnnnnn – fee amount in minor units of currency right-justified with leading zeros.  Tag could be repeatedly added to field 87 | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8464 |
| DF8468 | 41 | City | X | For P2P, city of the debited card cardholder  For money transfer, city of sender | auth\_data/ auth\_tag/ tag\_value  +tag\_id = 31 |
| DF8470 | 9 | CYBERPLAT Session ID | 9 | If present | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8470 |
| DF8549 | 13 | Partial Authorization Amount | X | If transaction was partial approved | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8549 |
| DF8567 | 1 | EMV early option | 9 | Indicates EMV data presence for EMV transactions:  0 – normal EMV transaction (EMV data presents in the transaction)  1 – early EMV transaction (EMV data doesn’t present in the transaction) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8567 |
| DF860A | 3 | Number of payments | 9 | Number of payments | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF860A |
| DF860E | 4 | Validation Code | X | For VISA BASE I: value is used to validate key fields in authorization request and respective fields in BASE II deferred clearing message; value is got from DE62.3 | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF860E |
| DF862F | 15 | Original Transaction Reference Id | X | Reference Id (field 63+Field 15 for MasterCard, field 62.2 for Visa) of the original transaction | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF862F |
| DF8753 | VAR | Domestic Card Acceptor Tax ID | X | Domestic Card Acceptor Tax ID (field 112 Subelement 020) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8753 |
| DF8754 | VAR | Installment Payment Data | X | Installment Payment Data (field 112 Subelement 009 or Subelement 022) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8754 |
| FF8009\* | Var | Front End Additional Services Block | X | Service parameters block  \* – Could be repeated for each service in the transaction. |  |
| DF8762 | 2 | Additional Authentication Method (Visa F126.20) | X | Alphadigits, Left Justified | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8762 |
| DF8763 | 2 | Additional Authentication Reason Code (Visa F126.21) | X | Alphadigits, Left Justified | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8763 |
| DF8770 | 3 | Installment Payment Data 1 | X | Installment Payment Data 1 (filed 112 Subelement 021) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8770 |
| DF8771 | 38 | Installment payment Data 3 | X | Installment Payment Data 1 (field 112 Subelement 023) | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8771 |
| DF8E01 | 15 | Track ID | X | SAT: Tracking number of purchase over the internet | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF8E01 |
| DF834C | 32 | Order Number | X | Order Number | auth\_data/ auth\_tag/ tag\_value  + tag\_name= DF834C |