SmartVista Integration Services(SVIS)

SOAP API Developer Reference

March 2015

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1. PREFACE
   1. Revision history

| Revision | Date | Author | Details |
| --- | --- | --- | --- |
| 0.1 | 15.10.2013 | R. Kiselev | Document created |
| 0.2 | 17.10.2013 | A. Filimonov | Revision history added |
| 0.3 | 17.12.2013 | A. Filimonov | SVIS methods added |
| 0.4 | 30.12.2013 | R. Kiselev | SVIS object limit list retrieval method added |
| 0.5 | 23.01.2014 | A. Filimonov | Change authorization scheme method added |
| 0.6 | 11.02.2014 | A. Filimonov | Comments on parameters in operations list method added. |
| 0.7 | 14.02.2014 | R. Kiselev | Card authorization schemes retrieval method added |
| 0.8 | 26.02.2014 | R. Kiselev | Cardholder data retrieval method added |
| 0.9 | 06.03.2014 | R. Kiselev | Added fields balance\_type and request\_balance for accounts list retrieval method. |
| 1.0 | 11.03.2014 | R. Kiselev | Service providers list retrieval method added |
| 1.1 | 14.03.2014 | R. Kiselev | Fixed wrong fields size. |
| 1.2 | 21.03.2014 | Y. Kolodkina | Added possibility to use operations list retrieval method by customer. |
| 1.3 | 27.03.2014 | A. Filimonov | Language field length changed. |
| 1.4 | 27.03.2014 | R. Kiselev | For method RateForInstRequest type of eff\_date is changed to date |
| 1.5 | 22.04.2012 | R. Kiselev | Added methods: InvoiceRequest, PostedTransactionsRequest, CreditStatementRequest, FlexFieldsRequest |
| 1.6 | 06.05.2014 | Y. Kolodkina | Comments for start\_date and end\_date parameters. |
| 1.7 | 27.05.2014 | R. Kiselev | Added merchant\_number for PostedTransactionsResponse |
| 1.8 | 03.06.2014 | R. Kiselev | Added merchant\_number for OperationsResponse |
| 1.9 | 03.07.2014 | B. Fedorchuk | Added methods: ObjectCyclesRequest, AccountDetailsRequest, AccountBalancesRequest, CardFeaturesRequest. Change method CardDetailsRequest. |
| 1.10 | 21.07.2014 | R. Kiselev | Added fields for OperationsRequest: oper\_type, msg\_type, match\_status, merchant\_number, merchant\_name  Set type to dataTime for open\_date and close\_date for AccountsResponse. |
| 1.11 | 24.07.2014 | R. Kiselev | OperationsRequest is able to accept more than one status. Added operation id for PostedTransactionRequest. Added to PostedTransactionsResponse transaction\_id and description. |
| 1.12 | 21.08.2014 | Y. Kolodkina | SetAuthSchemeRequest. Set StartDate is not mandatory. |
| 1.13 | 25.08.2014 | R. Kiselev | Added inst\_id for get\_account\_details, get\_account\_balances, get\_object\_limits |
| 1.14 | 27.08.2014 | R. Kiselev | At PostedTransaction made account\_number optional, added card\_id for SetAuthScheme and getCardAuthScheme |
| 1.15 | 01.09.2014 | R. Kiselev | Made iss\_date optional |
| 1.16 | 02.09.2014 | A. Nikishkin | Added methods: Auth/GetCustomerInfo. |
| 1.17 | 03.09.2014 | R. Kiselev | Added INVOICE\_NOT\_FOUND code |
| 1.18 | 05.09.2014 | A. Alalykin | New field is\_active has been added to response format of Authorization schemes retrieval method. New error has been defined for Change authorization scheme method. |
| 1.19 | 05.09.2014 | A. Alalykin | Modified incoming parameters for Object operation data retrieval method. |
| 1.20 | 12.09.2014 | R. Kiselev | Start\_date and end\_date is dateTime for setAuthScheme and getCardAuthScheme |
| 1.21 | 16.10.2014 | R. Kiselev | Changed mandatory bic, tin and corr\_account at AccountPaymentDetails |
| 1.22 | 31.10.2014 | R. Kiselev | Added getCustomerByPersonData |
| 1.23 | 26.11.2014 | R. Kiselev | Added getCardByPhone |
| 1.24 | 09.12.2014 | Y. kolodkina | Modified getCreditAccountRequest. Is set lang not mandatory. Added comment for request. |
| 1.25 | 21.12.2014 | R. Kiselev | Added host\_date for OperationsResponse |
| 1.26 | 13.12.2014 | A. Alalykin | Card details retrieval method corrected (CardDetailsResponse). |
| 1.27 | 23.01.2015 | R. Kiselev | Added origin id for GetOperationResponse and GetPostededTransactionResponse |
| 1.28 | 04.03.2015 | Y. kolodkina | getAccountRequest. Added comment for request. |
| 1.29 | 19.03.2015 | R. Kiselev | Changed mandatory for bank\_address for getAccountPaymentDetailsResponse and msisdn for getCustomerInfoResponse |
| 1.30 | 20.03.2015 | A. Alalykin | Method getObjectLimits changed: institution parameter is made mandatory, some error codes added. |
| 1.31 | 02.09.2016 | A. Perminov | Added originator\_refnum field to object operations retrievel request |
| 1.32 | 10.03.2017 | A. Kulikov | Added block document into the getCardholderResponse |
| 1.33 | 02.06.2017 | A. Kulikov | Added new blocks into getInvoice request and response |
| 1.34 | 05.06.2017 | A. Kulikov | Added aggregation data block in getInvoice response |
| 1.35 | 08.09.2017 | A. Perminov | Added getContractList |
| 1.36 | 28.09.2017 | A. Serov | New method added GetCustomerByCard |
| 1.37 | 02.10.2017 | A. Serov | GetCustomerByCard modified |
| 1.38 | 26.07.2018 | A. Kulikov | getCardsResponse modified |
| 1.39 | 14.08.2018 | D. Pestryakov | Inst\_id added in several methods |
| 1.40 | 15.08.2018 | D. Pestryakov | CardholderExtRequest added. Cardholder added in CardsRequest. |
| 1.41 | 28.08.2018 | A. Kulikov | Added new methods for FinancialOverview, CreditCardPayments, CustomerInfoByCard, PaymentInformation, Products, Transactions |
| 1.42 | 29.08.2018 | D. Pestryakov | Authorization fields added into object operation data method |
| 1.43 | 24.08.2018 | A. Alalykin | Unbilled debts retrieval method |
| 1.44 | 06.09.2018 | A. Kulikov | Refactor unbilled debts method |
| 1.45 | 16.01.2019 | S. Ivanov | Correct CardsRequest: 4.4.1 Request format. |
| 1.46 | 29.01.2019 | I. Kazakov | Delivery status is added to CardsResponse. |

* 1. Document purpose

SmartVista Integration Services is a reference manual for developers who are implementing SOAP 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.

1. SMARTVISTA INTEGRATION SERVICES OVERVIEW
   1. General concepts

SmartVista Integration Services (SVIS hereafter) is an API that provides programmatic access to SmartVista features and services. Developers can build custom applications, tools, and services that correspond to the some functions and information available through the SmartVista solution (GUI or Database). The API is based on open standards known collectively as “Web Services,” which include the Simple Object Access Protocol (SOAP), Web Services Definition Language (WSDL), and the XML Schema Definition language (XSD). These standards are supported by a wide range of development tools on a variety of platforms

In an object-oriented processing model, the interface to SOAP requests/responses is an object in your application’s native programming language. Your third-party SOAP client generates business-object interfaces and network stubs from SVIS WSDL and XSD files that specify SVIS message structure, its contents, and SVIS service bindings.

A business application works with data in the form of object properties to send and receive data by calling object methods. The SOAP client handles the details of building the SOAP request, sending it to SmartVista service, and converting the response back to an object.

* 1. SVIS WSDL/XSD Schema Definitions

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

SVIS WSDL: **info.wsdl**

SVIS XSD: **info.xsd**

* 1. Data types, Occurrence, Dictionaries

For SVIS 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 SVIS 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:** SVIS tags can be of Primitive XML Data Types (string, long, boolean, 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"

**Dictionaries:** Some parameters in SVIS specification are based on SmartVista Dictionaries. Dictionary name consists of 4 letters e.g. ACST. Please refer to **svxp\_dictionaries\_eng**. SmartVista Dictionaries can be extended by the customer.

Example:

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:int="http://bpc.ru/SVIS/integration">

<soapenv:Header/>

<soapenv:Body>

<int:getAccountsRequest>

<customer\_number>125</customer\_number>

<inst\_id>1001</inst\_id>

<customer\_id>4</customer\_id>

<card\_number>5186220000000389</card\_number>

<card\_id>100000000033</card\_id>

<status>ACSTACTV</status>

<account\_type> ACTP0100</account\_type>

<lang>LANGRUS</lang>

</int:getAccountsRequest>

</soapenv:Body>

</soapenv:Envelope>

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

1. RESPONSE CODES AND ERRORS

There are two type of errors that can be returned in the Response Message:

**System errors.**

If a request is malformed or some other error, the body of the SOAP response contains an

<Errors> element with other elements that can help you troubleshoot the cause of the error. Those can be found here: [***http://www.w3.org/TR/xmlschema-2/***](http://www.w3.org/TR/xmlschema-2/)

**Configuration errors.**

If SmartVista solution cannot return the data requested through SVIS web service the following error codes can be returned:

**<code>:**

* ACCOUNT\_NOT\_FOUND – there is no Account in SmartVista system that fits Web Service criteria
* CURRENCY\_RATE\_NOT\_FOUND – there is no Currency rate in SmartVista system that fits Web Service criteria
* CUSTOMER\_NOT\_FOUND – there is no Customer in SmartVista system that fits Web Service criteria
* CARD\_NOT\_FOUND– there is no Card in SmartVista system that fits Web Service criteria
* PERSON\_NOT\_FOUND– there is no Person in SmartVista system that fits Web Service criteria
* COMPANY\_NOT\_FOUND– there is no Company in SmartVista system that fits Web Service criteria
* ATTRIBUTE\_VALUE\_NOT\_DEFINED– there is no Attribute Value in SmartVista system that fits Web Service criteria
* INVOICE\_NOT\_FOUND - there is no Invoice in SmartVista system that fits Web Service criteria

**Error <code> example:**

<?xml version='1.0' encoding='UTF-8'?>

<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">

<S:Body>

<S:Fault xmlns:ns4="http://www.w3.org/2003/05/soap-envelope">

<faultcode>S:Server</faultcode>

<faultstring>ERROR</faultstring>

<detail>

<ns3:Fault xmlns:ns5="http://bpc.ru/SVISintegration" xmlns:ns4="http://bpc.ru/SVIS" xmlns:ns2="http://bpc.ru/sv/processesWS/" xmlns:ns3="http://bpc.ru/SVIS/integration">

<code> CUSTOMER\_NOT\_FOUND </code>

<description> Account [NULL] does not exist in institution [8020] for customer [NULL].

</description>

</ns3:Fault>

</detail>

</S:Fault>

</S:Body>

</S:Envelope>

1. SMARTVISTA INTEGRATION SERVICES METHODS
   1. Account list retrieval method
      1. Request format

| 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. |
| balance\_type | string | 8 | 0-1 | Balance type. Please refer to BLTP dictionary. |
| Lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |

* The system performs the search based on the customer identifier if specified and based on a customer number and institution identifier if not. If customer identifier and customer number is not specified, then the system performs the search customer identifier by card number or by card identifier.
* If a card number or a card identifier is specified, only the accounts linked with that card are returned.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AccountsResponse | | | | |
| account | complex |  | 0-\* |  |
| Account | | | | |
| account\_id | long | 12 | 1-1 | Account identifier |
| account\_number | string | 32 | 1-1 | Card number. |
| account\_type | string | 8 | 1-1 | Account type. Please refer to ACTP dictionary. |
| account\_type\_name | string | 200 | 1-1 | Name of the account type. |
| currency | string | 3 | 1-1 | Numeric code of the currency. |
| currency\_name | string | 3 | 1-1 | Letter code of the currency. |
| status | string | 8 | 1-1 | Account status. Please refer to ACST dictionary. |
| status\_name | string | 200 | 1-1 | Account status name. |
| aval\_balance | BigDecimal |  | 0-1 | Available balance |
| hold\_balance | BigDecimal |  | 0-1 | Hold amount |
| agent\_id | long | 8 | 1-1 | Agent identifier |
| agent\_name | string | 200 | 1-1 | Name of the agent |
| open\_date | dateTime |  | 1-1 | Account opening date |
| close\_date | dateTime |  | 0-1 | Account closing date |
| owner\_name | string | 200 | 1-1 | Account owner name |
| request\_balance | BigDecimal |  | 0-1 | Балан, для указанного типа баланса |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

* 1. Payment details retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AccountPaymentDetailsRequest | | | | |
| id | long | 12 | 0-1 | Account identifier. |
| account\_number | string | 32 | 0-1 | Account number. |
| inst\_id | long | 4 | 1-1 | Institution identifier. |
| lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |

* Account identifier is a search parameter with the highest priority. If it’s not specified, the search is performed based on the account number and institution identifier.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AccountPaymentDetailsResponse | | | | |
| account\_number | string | 32 | 1-1 | Card number. |
| recipient\_name | string | 200 | 1-1 | Name of the recipient |
| bank\_name | string | 200 | 1-1 | Name of the bank |
| bic | string | 9 | 0-1 | BIC (bank identification code) |
| tin | string | 12 | 0-1 | TIN (taxpayer’s individual number) |
| corr\_account | string | 20 | 0-1 | Correspondent account |
| bank\_address | string | 200 | 0-1 | Bank address |

* + 1. Errors

ACCOUNT\_NOT\_FOUND error <code> can be returned.

* 1. Currency rate retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| RateForInstRequest | | | | |
| rate\_type | string | 8 | 1-1 | Currency rate type. Please refer to RTTP dictionary. |
| src\_currency | string | 3 | 1-1 | Source currency code |
| dst\_currency | string | 3 | 1-1 | Destination currency code |
| eff\_date | date |  | 0-1 | Currency rate effective date |
| inst\_id | Long | 4 | 1-1 | Institution identifier |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| RateForInstResponse | | | | |
| rate | Double |  | 1-1 | Currency rate value |

* + 1. Errors

CURRENCY\_RATE\_NOT\_FOUND error <code> can be returned.

* 1. Card list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardsRequest | | | | |
| customer\_number | string | 200 | 0-1 | Customer number |
| inst\_id | long | 4 | 0-1 | Institution identifier |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| account\_number | string | 32 | 0-1 | Account number |
| account\_id | long | 12 | 0-1 | Account identifier |
| state | string | 8 | 0-1 | Card state. Please refer to CSTE dictionary. |
| get\_balance | boolean |  | 0-1 | Indicates whether the balances should be returned in response or not. |
| card\_mask | string | 24 | 0-1 | Card number mask |
| card\_type\_id | int | 4 | 0-1 | Card type indentifier |
| product\_id | long | 8 | 0-1 | Product identifier |
| creation\_date | dateTime |  | 0-1 | Card creation date and time |
| registration\_date | date |  | 0-1 | Card creation date |
| registration\_time | time |  | 0-1 | Card creation time |
| expir\_date | string | 7 | 1-1 | Expiration date (string formatted as MM.YYYY) |
| embossed\_name | string | 200 | 0-1 | Name embossed on card instance |
| cardholder\_name | complex |  | 0-1 | Cardholder name |
| cardholder\_number | string | 200 | 0-1 | Cardholder number |
| lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |
| Cardholder Name | | | | |
| first\_name | string | 200 | 0-1 | First name of cardholder |
| last\_name | string | 200 | 0-1 | Last name of cardholder |

* The system performs the search based on this available sets:
  + 1. based on customer identifier (if specified);
    2. based on customer number and institution identifier;
    3. based on cardholder number and institution identifier;
    4. based on a card mask and institution identifier.
* If an account number or an account identifier is specified, only the cards linked with that account are returned.
* If get\_balance is not specified, balances are not returned.
* The creation\_date field supports 2 options tag name:
  + 1. Tag creation\_date as a date and time;
    2. Tags: registration\_date and registration\_time as part of creation\_date (date and time).
    3. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardsResponse | | | | |
| card | complex |  | 0-\* |  |
| Card | | | | |
| id | long | 12 | 1-1 | Card identifier |
| card\_instance\_id | long | 12 | 1-1 | Card instance identifier |
| card\_number | string | 24 | 1-1 | Card number |
| card\_mask | string | 24 | 1-1 | Card number mask |
| seq\_number | string | 4 | 1-1 | Card instance number |
| expir\_date | string | 7 | 1-1 | Expiration date (string formatted as MM.YYYY) |
| person\_name | string | 200 | 1-1 | Cardholder name |
| category | string | 8 | 1-1 | Card category. Please refer to CRCG dictionary |
| category\_name | string | 200 | 1-1 | Card category name |
| network\_id | long | 4 | 1-1 | Network identifier |
| network\_name | string | 200 | 1-1 | Network name |
| status | string | 8 | 1-1 | Card status. Please refer to CSTS dictionary |
| status\_name | string | 200 | 1-1 | Card status name. |
| state | string | 8 | 1-1 | Card state. Please refer to CSTE dictionary. |
| state\_name | string | 200 | 1-1 | Card state name |
| delivery\_status | string | 8 | 0-1 | Card delivery status. Please refer to CRDS dictionary. |
| delivery\_status\_name | string | 200 | 0-1 | Delivery status name. |
| bin\_currency | string | 3 | 1-1 | BIN currency code |
| currency\_name | string | 3 | 1-1 | BIN currency name |
| aval\_balance | double |  | 0-1 | Available balance |
| hold\_balance | double |  | 0-1 | Hold amount |
| card\_type | string | 8 | 0-1 | Card type, dictionary value |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 200 | 0-1 | Customer number |
| inst\_id | long | 4 | 0-1 | Institution idetnifier |
| account\_number | string | 200 | 0-1 | Account number of default account |
| account\_id | long | 12 | 0-1 | Account identifier of default account |
| product\_id | long | 12 | 0-1 | Product identifier |
| product\_name | string | 200 | 0-1 | Product name |
| creation\_date | date |  | 0-1 | Card creation date and time |
| embossed\_name | string | 200 | 0-1 | Name embossed on card instance |
| cardholder\_name | complex |  | 0-1 | Cardholder name |
| Cardholder Name | | | | |
| first\_name | string | 200 | 0-1 | First name of cardholder |
| last\_name | string | 200 | 0-1 | Last name of cardholder |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

ACCOUNT\_NOT\_FOUND error <code> can be returned.

* 1. Card details retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardDetailsRequest | | | | |
| card\_number | string | 24 | 0-1 | Card number |
| card\_id | long | 12 | 0-1 | Card identifier |
| seq\_number | long | 4 | 0-1 | Card instance number |
| expir\_date | date |  | 0-1 | Expiration date |
| instance\_id | long | 12 | 0-1 | Card instance identifier |
| lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |
| card\_type\_id | int | 4 | 0-1 | Card type indentifier |
| inst\_id | long | 4 | 0-1 | Institution idetnifier |

* The search is performed based on the card instance identifier if specified. If not, the search parameters are used in the following order: card identifier + card instance number/expiration date, card number + card instance number/expiration date.
* If the card instance number is not specified, the last active card instance data will be returned.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardDetailsResponse | | | | |
| id | long | 12 | 1-1 | Card identifier |
| instance\_id | long | 12 | 1-1 | Card instance identifier |
| card\_number | string | 24 | 1-1 | Card number |
| card\_mask | string | 24 | 1-1 | Card number mask |
| seq\_number | long | 4 | 1-1 | Card instance number |
| expir\_date | string | 7 | 1-1 | Expiration date (formatted as MM.YYY) |
| person\_name | string | 200 | 1-1 | Cardholder name |
| card\_type\_id | long | 4 | 1-1 | Card identifier |
| name\_card\_type | string | 200 | 1-1 | Card type name |
| network\_id | long | 4 | 1-1 | Network identifier |
| network\_name | string | 200 | 1-1 | Network name |
| category | string | 8 | 1-1 | Card category. Please refer to CRCG dictionary. |
| category\_name | string | 200 | 1-1 | Card category name. |
| status | string | 8 | 1-1 | Card status. Please refer to CSTS dictionary. |
| status\_name | string | 200 | 1-1 | Card status name. |
| state | string | 8 | 1-1 | Card state. Please refer to CSTE dictionary. |
| state\_name | string | 200 | 1-1 | Card state name. |
| iss\_date | date |  | 0-1 | Issuing date |
| agent\_id | long | 8 | 1-1 | Issuing agent identifier. |
| agent\_name | string | 200 | 1-1 | Issuing agent name |
| is\_virtual | boolean |  | 1-1 | Virtual card flag. The value indicates whether the card is virtual or not. |
| counter\_invalid\_pin | long |  | 1-1 | Wrong PIN counter value. |
| state\_change\_reason | string |  | 0-1 | Card state change reason code. |
| state\_change\_reason\_description | string |  | 0-1 | Card state change reason description. |
| state\_change\_date | date |  | 0-1 | Card state change date. |
| state\_change\_user | string |  | 0-1 | Card state change user. |
| prev\_state | string |  | 0-1 | The code of previous card state. |
| prev\_state\_description | string |  | 0-1 | The description of previous card state. |
| status\_change\_reason | string |  | 0-1 | Status change reason code. |
| status\_change\_reason\_description | string |  | 0-1 | Status change reason description. |
| status\_change\_date | date |  | 0-1 | Status change date. |
| status\_change\_user | string |  | 0-1 | Status change user. |
| prev\_status | string |  | 0-1 | Previous card status code. |
| prev\_status\_description | string |  | 0-1 | Previous card status description. |
| agent\_number | string |  | 0-1 | Agent code. |
| product\_number | string |  | 0-1 | Product code. |
| delivery\_method | string |  | 0-1 | Delivery channel code. |
| delivery\_method\_description | string |  | 0-1 | Delivery channel description. |
| last\_application\_date | date |  | 0-1 | Card last application date. |
| last\_application\_user | string |  | 0-1 | Card last application user. |
| prev\_card\_id | long |  | 0-1 | Previous card identifier. |
| prev\_card\_number | string |  | 0-1 | Previous card number. |
| reissue\_reason | string |  | 0-1 | Reissue reason code. |
| reissue\_reason\_description | string |  | 0-1 | Reissue reason description |
| replace\_card\_id | long |  | 0-1 | Replace card identifier. |
| replace\_card\_number | string |  | 0-1 | Replace card number. |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Customer details retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| CustomerDetailsRequest | | | | |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 24 | 0-1 | Customer number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| lang | string | 8 | 0-1 | Language. |

* The system performs the search based on the customer identifier if specified and based on a customer number and institution identifier if not.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CustomerDetailsResponse | | | | |
| entity\_type | string | 8 | 1-1 | Entity type (company, person, etc.). Please refer to ENTT dictionary. |
| entity\_type\_name | string | 200 | 1-1 | Name of the entity type |
| category | string | 8 | 1-1 | Customer category. Please refer to CCTG dictionary. |
| category\_name | string | 200 | 1-1 | Customer category name |
| credit\_rating | string | 8 | 1-1 | Credit rating of the customer. Please refer to CRDR dictionary. |
| credit\_rating\_name | string | 200 | 1-1 | Credit rating name |
| resident | boolean |  | 1-1 | Indicates whether the customer is resident or not. |
| nationality | string | 3 | 1-1 | Nationality code |
| country\_code | string | 3 | 1-1 | Country code |
| country\_name | string | 200 | 1-1 | Country name |
| relation | string | 8 | 1-1 | Relationship between bank and customer. Please refer to RSCB dictionary. |
| relation\_name | string | 200 | 1-1 | Name of the relationship between bank and customer. |
| firs\_name | string | 200 | 1-1 | First name |
| second\_name | string | 200 | 1-1 | Second name |
| surname | string | 200 | 0-1 | Surname |
| gender | string | 8 | 1-1 | Customer gender. Please refer to GNDR dictionary. |
| birthday | date |  | 1-1 | Date of birth |
| place\_birth | string | 200 | 1-1 | Place of birth |
| short\_name | string | 200 | 1-1 | Short company name |
| full\_name | string | 4000 | 1-1 | Full company name |
| incorp\_form | string | 8 | 1-1 | Incorporation form of a company. Please refer to INCF dictionary. |
| incorp\_form\_name | string | 200 | 1-1 | Incorporation form name |
| customer\_id | long | 12 | 1-1 | Customer identifier |
| customer\_number | string | 200 | 1-1 | Customer number |

* + 1. Errors

PERSON\_NOT\_FOUND error <code> can be returned.

COMPANY\_NOT\_FOUND error <code> can be returned.

* 1. Client addresses retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AddressesRequest | | | | |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 24 | 0-1 | Customer number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| lang | string | 8 | 0-1 | Language. Please refer to LANG dictionary. |

* The system performs the search based on the customer identifier if specified and based on a customer number and institution identifier if not.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AddressesResponse | | | | |
| address | complex |  | 0-\* |  |
| address | | | | |
| address\_type | string | 8 | 1-1 | Address type. Please refer to ADTP dictionary |
| arddress\_type\_name | string | 200 | 1-1 | Name of the address type. |
| country | string | 3 | 1-1 | Country code |
| country\_name | string | 200 | 1-1 | Country name |
| postal\_code | string | 10 | 0-1 | Zip code |
| region | string | 200 | 0-1 | Region |
| city | string | 200 | 0-1 | City |
| street | string | 200 | 0-1 | Street |
| house | string | 200 | 0-1 | House/building |
| apartment | string | 200 | 0-1 | Apartment/flat |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

* 1. Customer contacts retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ContactsRequest | | | | |
| customer\_id | long | 12 | 1-1 | Customer identifier |
| customer\_number | string | 24 | 0-1 | Customer number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| get\_only\_actual | boolean |  | 0-1 | Indicates whether the actual data only should be returned. |
| lang | string | 8 | 0-1 | Language. Please refer to LANG dictionary. |

* The system performs the search based on the customer identifier if specified and based on a customer number and institution identifier if not.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ContactsResponse | | | | |
| contact | complex |  | 0-\* |  |
| contact | | | | |
| contact\_type | string | 8 | 1-1 | Contact type. Please refer to CNTT dictionary. |
| contact\_type\_name | string | 200 | 1-1 | Name of the contact type. |
| commun\_method | string | 8 | 1-1 | Communication method. Please refer to CMNM dictionary. |
| commun\_method\_name | string | 200 | 1-1 | Communication method name. |
| commun\_address | string | 200 | 0-1 | Contact information. |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

* 1. Customer IDs retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| DocumensRequest | | | | |
| customer\_id | long | 12 | 1-1 | Customer identifier |
| customer\_number | string | 200 | 0-1 | Customer number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| get\_only\_actual | boolean |  | 0-1 | Indicates whether the actual data only should be returned. |
| lang | string | 8 | 0-1 | Language. Please refer to LANG dictionary. |

* The system performs the search based on the customer identifier if specified and based on a customer number and institution identifier if not.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| DocumensResponse | | | | |
| document | complex |  | 0-\* |  |
| document | | | | |
| id\_type | string | 8 | 1-1 | ID type. Please refer to IDTP dictionary. |
| id\_type\_name | string | 200 | 1-1 | Name of the ID type. |
| id\_series | string | 200 | 0-1 | Series |
| id\_number | string | 200 | 1-1 | Number |
| id\_issue\_date | date |  | 0-1 | Issuance date |
| id\_expire\_date | date |  | 0-1 | Expiration date |
| id\_issuer | string | 200 | 0-1 | Comment |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

* 1. Object operation data retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| OperationsRequest | | | | |
| card\_id | long | 12 | 0-1 | Card identifier |
| card\_number | string | 24 | 0-1 | Card number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| account\_id | long | 12 | 0-1 | Account identifier |
| account\_number | string | 32 | 0-1 | Account number |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 200 | 0-1 | Customer number |
| lang | string | 8 | 0-1 | Language |
| start\_date | date |  | 0-1 | Start date |
| end\_date | date |  | 0-1 | End date |
| statuses | complex |  | 0-\* |  |
| status | string | 8 | 0-1 | Operation status. Please refer to OPST dictionary. |
| oper\_type | string | 8 | 0-1 | Operation type. Please refer to OPTP dictionary. |
| msg\_type | string | 8 | 0-1 | Message type. Please refer to MSGT dictionary. |
| match\_status | string | 8 | 0-1 | Message type. Please refer to MTST dictionary. |
| merchant\_number | string | 15 | 0-1 | Merchant number. |
| merchant\_name | String | 200 | 0-1 | Merchant name |

* Either the card data or the account data or the customer data should be specified.
* If a card identifier is not specified, the search is performed based on a card number.
* If an account identifier is not specified, the search is performed based on an account number.
* If a customer identifier is not specified, the search is performed based on a customer number.
* If both start and end dates are not specified, the search is performed through the current day operations only.
* In request used operation date. If start\_date and end\_date is not specified, then selected operations of current date.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| OperationsResponse | | | | |
| operation | complex |  | 0-\* |  |
| operation | | | | |
| id | long | 16 | 1-1 | Operation identifier |
| original\_id | string | 16 | 0-1 | Original id |
| card\_mask | string | 24 | 1-1 | Card number mask |
| account\_number | string | 32 | 1-1 | Account number |
| card\_seq\_number | string | 4 | 0-1 | Card instance number |
| is\_reversal | boolean |  | 0-1 | Indicates whether the operation is reversal |
| oper\_date | date |  | 0-1 | Operation date |
| oper\_type | string | 8 | 0-1 | Operation type. Please refer to OPTP dictionary. |
| oper\_type\_name | string | 200 | 0-1 | Name of the operation type. |
| status | string | 8 | 0-1 | Operation status. Please refer to OPST dictionary. |
| status\_name | string | 200 | 0-1 | Operation status name. |
| oper\_amount | string | 200 | 0-1 | Operation amount (formatted string including decimal points) |
| oper\_currency | string | 3 | 0-1 | Operation currency code |
| currency\_name | string | 3 | 0-1 | Operation currency name |
| mcc | string | 4 | 0-1 | MCC |
| merchant\_name | string | 200 | 0-1 | Merchant name |
| merchant\_number | string | 15 | 0-1 | Merchant number |
| merchant\_address | string | 200 | 0-1 | Merchant address |
| balance | string | 200 | 0-1 | Account balance after the operation processing (formatted string including decimal points) |
| currency | string | 3 | 0-1 | Account or card currency (depending on the data specified in request parameters) |
| account\_amount | string | 200 | 0-1 | Operations amount in account currency |
| account\_currency | string | 3 | 0-1 | Account currency code |
| host\_date | date |  | 0-1 | Host date |
| originator\_refnum | string | 36 | 0-1 | Reference number generated by originator of operation |
| external\_auth\_id | string | 30 | 0-1 | External authorization identifier |
| resp\_code | string | 8 | 0-1 | Response code. Dictionary RESP |
| is\_advice | int | 1 | 0-1 | Flag shows if authorization is advice. |
| cat\_level | string | 8 | 0-1 | CAT level. Dictionary F22D |
| 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 |
| terminal\_number | string | 8 | 0-1 | Terminal number |
| auth\_code | string | 6 | 0-1 | Issuer auth code |

* + 1. Errors

ACCOUNT\_NOT\_FOUND error <code> can be returned.

CARD\_NOT\_FOUND error <code> can be returned.

CUSTOMER\_NOT\_FOUND error <code> can be returned.

CURRENCY\_NOT\_FOUND error <code> can be returned.

* 1. Customer notification settings retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CustomerNtfSettingsRequestRequest | | | | |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 200 | 0-1 | Customer number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| account\_id | long | 12 | 0-1 | Account identifier |
| account\_number | string | 32 | 0-1 | Account number |
| card\_id | long | 12 | 0-1 | Card identifier |
| card\_number | string | 24 | 0-1 | Card number |
| lang | string | 8 | 0-1 | Language. |

* Either customer identifier or customer number should be specified.
* Either card data or account data should be specified.
* If a card identifier is not specified, the search is performed based on a card number.
* If an account identifier is not specified, the search is performed based on an account number.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CustomerNtfSettingsRequestResponse | | | | |
| customer\_ntf\_settings | complex |  | 0-\* |  |
| customer\_ntf\_settings | | | | |
| entity\_type | string | 8 | 1-1 | Entity type. Please refer to ENTT dictionary. |
| entity\_type\_name | string | 200 | 1-1 | Name of the entity type. |
| object\_id | long | 16 | 1-1 | Identifier of the object |
| event\_type | string | 8 | 1-1 | Event type. Please refer to EVNT dictionary. |
| event\_type\_name | string | 200 | 1-1 | Name of the event type. |
| channel\_id | long | 5 | 1-1 | Delivery channel identifier. |
| channel\_name | string | 200 | 1-1 | Delivery channel name |
| delivery\_address | string | 200 | 1-1 | Notification delivery address |
| is\_active | boolean |  | 1-1 | Indicates whether the setting is active |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

ATTRIBUTE\_VALUE\_NOT\_DEFINED error <code> can be returned.

* 1. Object limit list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ObjectLimitsRequest | | | | |
| customer\_id | long | 12 | 0-1 | Customer identifier |
| customer\_number | string | 200 | 0-1 | Customer number |
| account\_id | long | 12 | 0-1 | Account identifier |
| account\_number | string | 32 | 0-1 | Account number |
| card\_id | long | 12 | 0-1 | Card identifier |
| card\_number | string | 24 | 0-1 | Card number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| lang | string | 8 | 0-1 | Language. Please refer to LANG dictionary. |

* System searches for the requested limit by the entity identifier or number specified in request parameters.
* Either an entity number or entity identifier should be specified.

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ObjectLimitsResponse | | | | |
| object\_limits | complex |  | 0-\* |  |
| Object\_limits | | | | |
| entity\_type | string | 8 | 1-1 | Entity type. Please refer to ENTT dictionary. |
| object\_id | long | 16 | 1-1 | Identifier of the object |
| limit\_type | string | 8 | 1-1 | Limit type |
| limit\_name | string | 200 | 1-1 | Limit name |
| limit\_currency | string | 5 | 1-1 | Limit currency |
| count\_value | long | 6 | 1-1 | Current count limit value |
| sum\_value | long | 6 | 1-1 | Current sum limit value |
| sum\_limit | long | 12 | 1-1 | Sum threshold |
| count\_limit | long | 14 | 1-1 | Count threshold |
| last\_reset\_date | date |  | 1-1 | Starting date of the current limit period |
| next\_date | date |  | 1-1 | Ending date of the current limit period |

* + 1. Errors

ENTITY\_OBJECT\_IS\_NOT\_DEFINED error <code> can be returned.

INSTITUTION\_NOT\_DEFINED error <code> can be returned.

CUSTOMER\_NOT\_FOUND error <code> can be returned.

ACCOUNT\_NOT\_FOUND error <code> can be returned.

CARD\_NOT\_FOUND error <code> can be returned.

CARD\_IS\_NOT\_FOUND error <code> can be returned if card is found in another institution.

* 1. Change authorization scheme method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| SetAuthSchemeRequest | | | | |
| AuthSchemeCode | string | 200 | 1-1 | Authorization scheme code. Schemes configured during the installation process. |
| StartDate | dateTime |  | 0-1 | Start date |
| EndDate | dateTime |  | 0-1 | End date |
| CardNumber | string | 24 | 0-1 | Card number |
| CardId | long | 12 | 0-1 | Identifier of the card |

* Set CardNumber or CardId
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| No tags in response | | | | |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

END\_DATE\_IS\_LESS\_THAN\_START\_DATE error <code> can be returned.

Possible case of unevident behaviour:

1. If there is some scheme (attached to a card) with dates from 04.08 till 30.10 and we are trying to add scheme with the same name for period 31.07 to 01.08, such request will return error END\_DATE\_IS\_LESS\_THAN\_START\_DATE.   
     
   **Clarification:** This can be resolved via adding another scheme (with different name) and attaching it to the same card for required period.
2. There is a scheme valid from 30.07 till 04.08 and we are trying to add another scheme (with the same name) for period of 05.10 to 07.10. As a result we will change existing scheme dates and get one scheme from 30.07 till 07.10.

**Clarification:** In this case we have a prolongation of an existing scheme. Instead of adding new period for the same scheme. Practically - not a big difference.

* 1. Authorization schemes retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardAuthSchemesRequest | | | | |
| card\_number | string | 24 | 0-1 | Card number |
| card\_id | long | 12 | 0-1 | Identifier of the card |
| only\_active | boolean |  | 0-1 | Show only active schemes for card |
| lang | string | 7 | 0-1 | Language |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Set card\_number or card\_id
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardAuthSchemesResponse | | | | |
| card\_auth\_schemes | complex |  | 0-\* | Card authorization schemes |
| card\_auth\_scheme | | | | |
| scheme\_name | string | 200 | 1-1 | Authorization scheme name |
| auth\_scheme\_code | string | 200 | 1-1 | Authorization scheme code |
| is\_active | boolean |  | 0-1 | It shows if scheme is active for card |
| start\_date | dateTime |  | 0-1 | Start date |
| end\_date | dateTime |  | 0-1 | End date |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Cardholder data retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardholderRequest | | | | |
| card\_id | long | 12 | 0-1 | Card identifier |
| card\_number | string | 24 | 0-1 | Card number |
| lang | string | 8 | 0-1 | Language |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Set card number or card identifier
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardholderResponse | | | | |
| surname | string | 200 | 1-1 | Cardholder surname |
| first\_name | string | 200 | 1-1 | Cardholder first name |
| second\_name | string | 200 | 0-1 | Cardholder second name |
| gender | string | 8 | 0-1 | Gender: GNDRMALE – Male  GNDRFEML – Female |
| birthday | date |  | 0-1 | Birthday |
| cardholder\_number | string | 24 | 1-1 | Cardholder number |
| cardholder\_name | string | 200 | 1-1 | Embossed name |
| document | complex |  | 0-\* | Cardholder’s documents |
| document | | | | |
| type | string | 8 | 1-1 | Document type |
| type\_name | string | 200 | 0-1 | Document type name |
| series | string | 200 | 1-1 | Document series |
| number | string | 200 | 1-1 | Document number |
| issuer | string | 200 | 0-1 | Organisation which issued document |
| issue\_date | date |  | 0-1 | Document issue date |
| expire\_date | date |  | 0-1 | Document expiration date |
| description | string | 200 | 0-1 | Description of document |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Service providers list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ServiceProvidersRequest | | | | |
| lang | string | 8 | 0-1 | Language |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| ServiceProvidersResponse | | | | |
| service\_providers | complex |  | 0-\* | Service providers |
| service\_providers | | | | |
| purpose\_name | string | 200 | 1-1 | Service provider name |
| purpose\_id | long | 8 | 1-1 | Service provider identifier |

* 1. Invoice list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| InvoiceRequest | | | | |
| account\_number | string | 32 | 1-1 | Account number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| invoice\_age | long |  | 0-1 | Invoice age |
| include\_oper\_details | boolean |  | 0-1 | Include operations details |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| InvoiceResponse | | | | |
| invoice | | | | |
| account\_number | string | 32 | 1-1 | Account number |
| currency | long | 3 | 1-1 | Currency |
| serial\_number | long |  | 1-1 | Serial number |
| exceed\_limit | string | 200 | 0-1 | Exceed limit |
| total\_amount\_due | BigDecimal |  | 0-1 | Total amount due |
| own\_funds | BigDecimal |  | 0-1 | Own funds |
| min\_amount\_due | BigDecimal |  | 0-1 | Min amount due |
| start\_date | Date |  | 0-1 | Start date |
| invoice\_date | Date |  | 0-1 | Invoice date |
| grace\_date | Date |  | 0-1 | Grace date |
| due\_date | Date |  | 0-1 | Due date |
| penalty\_date | Date |  | 0-1 | Penalty date |
| aging\_period | Int | 1 | 0-1 | Aging period |
| is\_tad\_paid | int | 1 | 0-1 | Tab paid (0/1) |
| Is\_mad\_paid | int | 1 | 0-1 | Mad paid (0/1) |
| statement\_date | Date |  | 0-1 | Statement date |
| customer\_name | string |  | 0-1 | Customer name |
| customer\_address | string |  | 0-1 | Customer address |
| invoice\_begin\_date | Date |  | 0-1 | Invoice begin date |
| invoice\_end\_date | Date |  | 0-1 | Invoice end date |
| total\_income | BigDecimal |  | 0-1 | Total income |
| total\_expenses | BigDecimal |  | 0-1 | Total expenses |
| interest\_amount | BigDecimal |  | 0-1 | Interest amount |
| fee\_amount | BigDecimal |  | 0-1 | Fee amount |
| overdue\_amount | BigDecimal |  | 0-1 | Overdue amount |
| overdue\_interest\_amount | BigDecimal |  | 0-1 | Overdue interest amount |
| penalty\_fee\_amount | BigDecimal |  | 0-1 | Penalty fee amount |
| incoming\_debt | BigDecimal |  | 0-1 | Incoming debt |
| outgoing\_debt | BigDecimal |  | 0-1 | Outgoing debt |
| operations\_total | complex |  | 0-1 | Aggregation data records |
| operations\_details | complex |  | 0-1 | Details of linked operations |
| operations\_total | | | | |
| operation\_total | complex |  | 1-\* | Aggregation data |
| operation\_total | | | | |
| operation\_type | string |  | 0-1 | Operation type |
| operation\_  currency | string |  | 0-1 | Operation currency |
| total\_operation\_  count | int |  | 0-1 | Total operation count |
| total\_operation\_  amount | BigDecimal |  | 0-1 | Total operation amount |
| operations\_details | | | | |
| operation\_details | complex |  | 1-\* | Details of linked operation |
| operation\_details | | | | |
| oper\_date | dateTime |  | 0-1 | Operation date |
| oper\_type | string | 8 | 0-1 | Operation type |
| income | BigDecimal |  | 0-1 | Income amount |
| expenses | BigDecimal |  | 0-1 | Expenses amount |
| credit | BigDecimal |  | 0-1 | Credit amount |
| repayment | BigDecimal |  | 0-1 | Repayment amount |
| percent | BigDecimal |  | 0-1 | Percent |
| operation\_description | string |  | 0-1 | Description |

* 1. Posted transactions list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| PostedTransactionsRequest | | | | |
| account\_number | string | 32 | 0-1 | Account number |
| object\_id | long | 16 | 0-1 | Operation id |
| date\_from | date |  | 0-1 | Started date of filtering |
| date\_to | date |  | 0-1 | Ended date of filtering |

* Set account\_number or object\_id
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| PostedTransactionsResponse | | | | |
| transaction | complex |  | 0-\* | transactions |
| transaction | | | | |
| object\_id | string | 16 | 1-1 | Object id |
| original\_id | string | 16 | 0-1 | Original id |
| transaction\_id | long | 16 | 1-1 | Transaction id |
| description | string | 200 | 0-1 | Description of transaction |
| transaction\_type | string | 8 | 0-1 | Transaction type |
| transaction\_type\_description | string | 200 | 0-1 | Description of transaction type |
| oper\_type | string | 8 | 0-1 | Operation type |
| oper\_type\_description | string | 200 | 0-1 | Description of operation type |
| amount\_purpose | string | 8 | 0-1 | Amount purpose |
| amount\_purpose\_descriptiom | string | 200 | 0-1 | Description of amount purpose |
| oper\_date | date |  | 0-1 | Date of operation |
| posting\_date | date |  | 0-1 | Posting date |
| merchant\_number | string | 15 | 0-1 | Merchant number |
| merchant\_name | string | 200 | 0-1 | Merchant name |
| merchant\_street | string | 200 | 0-1 | Merchant street |
| merchant\_city | string | 200 | 0-1 | Merchant city |
| merchant\_country | string | 200 | 0-1 | Merchant country |
| currency | string | 8 | 0-1 | Currency of operation |
| amount | BigDecimal |  | 0-1 | Amount |
| aval\_balance | BigDecimal |  | 0-1 | Available balance |

* 1. Credit statement list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CreditStatementRequest | | | | |
| account\_number | string | 32 | 1-1 | Account number |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| lang | string | 8 | 0-1 | language |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CreditStatementResponse | | | | |
| report | | | | |
| customer\_account | string | 32 | 0-1 | Account number |
| currency | string | 8 | 0-1 | Currency |
| customer\_name | string | 200 | 0-1 | Customer name |
| customer\_address | string | 200 | 0-1 | Customer address |
| start\_date | date |  | 0-1 | Start date |
| invoice\_date | Date |  | 0-1 | Invoice date |
| grace\_end\_date | Date |  | 0-1 | Grace end date |
| credit\_limit | BigDecimal |  | 0-1 | Credit limit |
| available\_balance | BigDecimal |  | 0-1 | Available balance |
| ledger\_balance | BigDecimal |  | 0-1 | Ledger balance |
| beginning\_balance | BigDecimal |  | 0-1 | Beginning balance |
| ending\_balance | BigDecimal |  | 0-1 | Ending balance |
| total\_income | BigDecimal |  | 0-1 | Total income |
| total\_expence | BigDecimal |  | 0-1 | Total expenses |
| total\_payment | BigDecimal |  | 0-1 | Total payment |
| total\_interest | BigDecimal |  | 0-1 | Total interest |
| total\_penalty | BigDecimal |  | 0-1 | Total penalty |
| total\_amount\_due | BigDecimal |  | 0-1 | Total amount due |
| min\_amount\_due | BigDecimal |  | 0-1 | Min amount due |
| due\_date | Date |  | 0-1 | Due date |
| overdue | BigDecimal |  | 0-1 | Overdue |
| overdue\_interest | BigDecimal |  | 0-1 | Overdue interest |
| summary\_income | BigDecimal |  | 0-1 | Summary income |
| summary\_expence | BigDecimal |  | 0-1 | Summary expenses |
| summary\_overdraft | BigDecimal |  | 0-1 | Summary overdraft |
| summary\_repayment | BigDecimal |  | 0-1 | Summary repayment |
| summary\_interest | BigDecimal |  | 0-1 | Summary interest |
| declared\_payment\_amount | BigDecimal |  | 0-1 | Declared payment amount |

* 1. Flex fields list retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| FlexFieldsRequest | | | | |
| entity\_type | string | 8 | 1-1 | Entity type |
| object\_id | long | 8 | 1-1 | Object id |
| lang | string | 8 | 0-1 | Language |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| FlexFieldsResponse | | | | |
| flex\_fields | | | | |
| id | long | 8 | 0-1 | Object id |
| entity\_type | string | 8 | 0-1 | Entity type |
| object\_type | string | 8 | 0-1 | Object type |
| default\_number\_value | BigDecimal |  | 0-1 | Default number value |
| default\_char\_value | string |  | 0-1 | Default char value |
| default\_date\_value | date |  | 0-1 | Default date value |
| default\_lov\_value |  |  | 0-1 | Default lov value |
| user\_defined | boolean |  | 0-1 | Is user defined |
| inst\_id | long | 8 | 0-1 | Institution id |
| inst\_name | string | 200 | 0-1 | Institution name |

* 1. Object cycles retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| ObjectCyclesRequest | | | | |
| entity\_type | string | 8 | 1-1 | Entity type |
| object\_id | long | 16 | 0-1 | Object id |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| ObjectCyclesResponse | | | | |
| object\_cycles | | | | |
| cycle\_type | string |  | 0-1 | Cycle type code. |
| cycle\_type\_description | string |  | 0-1 | Cycle type description. |
| prev\_date | date |  | 0-1 | The previous date of the cycle. |
| next\_date | date |  | 0-1 | The next date of the cycle. |
| cycle\_id | long |  | 0-1 | Cycle identifier. |
| cycle\_description | string |  | 0-1 | Cycle description. |
| entity\_type | string |  | 0-1 | Entity type code. |
| entity\_description | string |  | 0-1 | Entity type description. |

* + 1. Errors

ENTITY\_TYPE\_NOT\_FOUND error <code> can be returned.

OBJECT\_NOT\_FOUND error <code> can be returned.

* 1. Account details retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AccountDetailsRequest | | | | |
| account\_id | long | 12 | 0-1 | Account identifier. |
| account\_number | string | 32 | 0-1 | Account number. |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Only one parameter can be provided. The system performs the search based on the account identifier or account number or both. It depends on which parameters are provided.
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| AccountDetailsResponse | | | | |
| account\_details | | | | |
| account\_id | long |  | 0-1 | Account identifier. |
| account\_number | string |  | 0-1 | Account number. |
| account\_type | string |  | 0-1 | Account type code. |
| account\_type\_name | string |  | 0-1 | Account type description. |
| currency | string |  | 0-1 | Account currency. |
| status | string |  | 0-1 | Status code. |
| status\_name | string |  | 0-1 | Status code description. |
| available\_balance | decimal |  | 0-1 | Available balance. |
| account\_open\_date | string |  | 0-1 | Account open date. |
| last\_application\_date | date |  | 0-1 | Last account application date. |
| last\_application\_user | string |  | 0-1 | Last account application user. |
| status\_change\_reason | string |  | 0-1 | Status change reason code. |
| status\_change\_reason\_description | string |  | 0-1 | Status change reason description. |
| status\_change\_date | date |  | 0-1 | Status change date. |
| status\_change\_user | string |  | 0-1 | Status change user. |
| agent\_id | string |  | 0-1 | Agent identifier. |
| agent\_name | string |  | 0-1 | Agent name. |
| agent\_number | string |  | 0-1 | Agent number. |
| product\_number | string |  | 0-1 | Product number. |
| prev\_status | string |  | 0-1 | Previous account status code. |
| prev\_status\_description | string |  | 0-1 | Previous account status description. |

* + 1. Errors

UNKNOWN\_ACCOUNT error <code> can be returned.

* 1. Account balances retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AccountBalancesRequest | | | | |
| account\_id | long | 12 | 0-1 | Account identifier. |
| account\_number | string | 32 | 0-1 | Account number. |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Only one parameter can be provided. The system performs the search based on the account identifier or account number or both. It depends on which parameters are provided.
  + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AccountBalancesResponse | | | | |
| account\_balances | | | | |
| balance\_type | string |  | 0-1 | Balance type code. |
| balance\_type\_description | string |  | 0-1 | Balance type description. |
| amount | string |  | 0-1 | Balance amount. |
| currency | string |  | 0-1 | Balance currency. |
| amount\_acc\_currency | string |  | 0-1 | Account amount. |
| account\_currency | string |  | 0-1 | Account currency. |

* + 1. Errors

UNKNOWN\_ACCOUNT error <code> can be returned.

* 1. Card features retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| CardFeaturesRequest | | | | |
| card\_id | long | 12 | 0-1 | Card identifier. |
| card\_number | string | 32 | 0-1 | Card number. |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Only one parameter can be provided. The system performs the search based on the card identifier or card number or both. It depends on which parameters are provided.
  + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| CardFeaturesResponse | | | | |
| card\_features | | | | |
| card\_feature | string |  | 0-1 | Feature code. |
| feature\_description | string |  | 0-1 | Feature description. |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Authentication
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AuthRequest | | | | |
| card\_number | string | 12 | 1-1 | Card number. |
| keyword | string |  | 1-1 | keyword. |
| inst\_id | long | 4 | 0-1 | Institution identifier. |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| AuthResponse | | | | |
| inst\_id | long |  | 1-1 | Institution identifier. |
| customer\_id | long |  | 1-1 | Customer identifier. |

* 1. Get customer name and phone data
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerInfoRequest | | | | |
| inst\_id | long |  | 1-1 | Institution identifier. |
| customer\_id | long |  | 1-1 | Customer identifier. |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerInfoResponse | | | | |
| name | string |  | 1-1 | Customer name. |
| msisdn | string |  | 0-1 | Phone number. |

* 1. THE METHOD OF OBTAINING DATA OF LOAN
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| getCreditAccountRequest | | | | |
| lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary. |
| accountId | long | 12 | 0-1 | Account identifier. |
| accountNumber | string | 32 | 0-1 | Account number. |
| instId | long | 4 | 0-1 | Institution identifier. |
| effDate | date |  | 0-1 | Current date. |

* The system performs the search based on the account identifier if specified and based on the account number and institution identifier if not.
  + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| CreditAccountResponse | | | | |
| repaymentAccountNumber | string | 32 | 0-1 | Account of credit repayment ( to output the current account number). |
| closingDate | date |  | 0-1 | Currency of credit service (closing date). |
| fullLoanDebtAmount | string | 27 | 1-1 | Total amount due (TAD) for the latest statement. |
| creditAmount | string | 27 | 1-1 | Credit limit. |
| interestRate | string | 27 | 0-1 | Interest rate on credit, if there are several interest rates, to choose the maximum one for the principal. |
| interestAmount | string | 27 | 0-1 | Interest included in the latest statement. |
| surchargeRate | string | 27 | 0-1 | Rate of overdued arrears. |
| surchargeAmount | string | 27 | 0-1 | Amount of overdue arrears by the latest statement. |
| fullRepaymentAmount | string | 27 | 0-1 | Total amount deposited from the latest statement. |
| creditRepaymentAmount | string | 27 | 0-1 | Redeemed principal indebtedness from the latest statement. |
| interestRepaymentAmount | string | 27 | 0-1 | Interest cancelled from the latest statement. |
| surchargeRepaymentAmount | string | 27 | 0-1 | Redeemed overdue indebtedness from the latest statement. |
| fullRemainingAmount | string | 27 | 0-1 | Loan balance- (Total amount due minus payments TAD). |
| creditRemainingAmount | string | 27 | 0-1 | Remaining amount of the principal debt. |
| interestRemainingAmount | string | 27 | 0-1 | Remaining amount of interest. |
| surchargeRemainingAmount | string | 27 | 0-1 | Remaining amount of arrears. |
| nextDueDate | date |  | 0-1 | Date of the next payment of credit. |
| nextDueAmount | string | 27 | 0-1 | Minimum amount due. |

* 1. Get customer id
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerByPersonDataRequest | | | | |
| inst\_id | long |  | 1-1 | Institution identifier. |
| commun\_method | string |  | 0-1 | Communication method. |
| commun\_address | string |  | 0-1 | Communication address. |
| id\_type | string |  | 0-1 | ID type |
| id\_series | string |  | 0-1 | Series |
| id\_number | string |  | 0-1 | Number |

* Set commun\_method, commun\_address or id\_type, id\_number
  + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerByPersonDataResponse | | | | |
| id | long |  | 1-1 | Customer id. |

* + 1. Errors

TOO\_MANY\_CUSTOMERS\_ARE\_FOUND error <code> can be returned.

CUSTOMER\_NOT\_FOUND error <code> can be returned.

* 1. Get CARD NUMBER
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCardByPhoneRequest | | | | |
| commun\_address | String |  | 1-1 | Phone number. |
| Card\_mask | String |  | 1-1 | Card mask |
| inst\_id | long | 4 | 0-1 | Institution identifier. |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCardByPhoneDataResponse | | | | |
| card\_number | String |  | 1-1 | Card number |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Get merchant statistic
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| MerchantStatRequest | | | | |
| Inst\_id | long |  | 1-1 | Institution ID |
| customer\_number | string | 200 | 1-1 | Merchant customer number. |
| start\_date | date |  | 0-1 | Statistic start date (including).  Default current date. |
| end\_date | date |  | 0-1 | Statistic end date (including).  Default current date. |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| MerchantStatResponse | | | | |
| customer\_number | string | 200 | 1-1 | Merchant customer number |
| date\_stat | complex |  | 0-\* |  |
| date\_stat | | | | |
| date | date |  | 1-1 | statistic date |
| currencies | complex |  | 1-\* | Statistic amounts in currencies |
| trxn\_count\_total | int |  | 1-1 | Total count of transactions in the date on the merchant account |
| trxn\_count\_pay | int |  | 1-1 | Total count of payment transactions in the date on the merchant account |
| trxn\_count\_trf | int |  | 1-1 | Total count of money transfer transactions in the date on the merchant account |
| trxn\_count\_dep | int |  | 1-1 | Total count of deposit transactions in the date on the merchant account |
| trxn\_count\_cash | int |  | 1-1 | Total count of cash withdrawal transactions in the date on the merchant account |
| Currencies | | | | |
| currency | string | 3 | 1-1 | Currency code |
| amount\_sum | double |  | 1-1 | Sum of amount of all transactions on the customer account in the account currency in the date  Without fee transactions |
| fee\_sum | double |  | 1-1 | Sum of all fees earned on the customer account in the account currency in the date |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

STATISTIC\_NOT\_FOUND error <code> can be returned.

* 1. Contract list retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ContractListRequest | | | | |
| customer\_id | long | 12 | 0-1 | Customer identifier. |
| customer\_number | string | 200 | 1-1 | Customer number. |
| inst\_id | long | 4 | 1-1 | Institution identifier. |
| card\_number | string | 24 | 0-1 | Card number. |
| card\_id | long | 12 | 0-1 | Card identifier. |
| account\_number | string | 32 | 0-1 | Card number. |
| account\_id | long | 12 | 0-1 | Account identifier |
| seq\_number | long | 4 | 0-1 | Card instance number |
| expiry\_date | date |  | 0-1 | Expiration date |
| instance\_id | long | 12 | 0-1 | Card instance identifier |

* Either card\_number or card\_id may be provided in request, but not both
* Either account\_number or account\_id may be provided in request, but not both
  + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ContractListResponse | | | | |
| contract | complex |  | 0-\* |  |
| Contract | | | | |
| contract\_number | string | 200 | 1-1 | Contract number |
| contract\_type | string | 8 | 1-1 | Contract type |
| product | string | 4000 | 1-1 | Product name |
| start\_date | date |  | 1-1 | Contract start date |
| end\_date | date |  | 1-1 | Contract end date |

* + 1. Errors

CUSTOMER\_ID\_AND\_NUMBER\_MISMATCH, CARD\_OR\_ACCOUNT\_DOES\_NOT\_BELONG\_TO\_CUSTOMER, CARD\_INSTANCE\_DATA\_ARE\_INCONSISTENT, CARD\_CONTRACT\_DIFFERS\_FROM\_ACCOUNT\_CONTRACT error <code> can be returned.

* 1. Get customer by card
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerByCardRequest | | | | |
| card\_number | string | 12 | 1-1 | Card number. |
| lang | string | 7 | 0-1 | Language. Please refer to LANG dictionary.  Default user language. |
| inst\_id | long | 4 | 0-1 | Institution identifier. |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetCustomerByCardResponse | | | | |
| inst\_id | long |  | 1-1 | Institution identifier. |
| customer | complex |  | 1-1 |  |
| customer | | | | |
| customer\_id | long |  | 1-1 | Customer identifier. |
| customer\_number | string | 200 | 1-1 | Customer number. |

* + 1. Errors

CUSTOMER\_NOT\_FOUND error <code> can be returned.

CARD\_NOT\_FOUND error <code> can be returned.

* 1. Payment information inquiry online
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| PaymentInformation | | | | |
| short\_card\_mask | string | 4 | 0-1 | Last 4 digits of card number. |
| type\_id | string | 8 | 0-1 | Identity type |
| series\_id | string | 200 | 0-1 | Document series |
| number\_id | string | 200 | 0-1 | Document number identifier (National ID) |
| account\_number | string | 200 | 0-1 | Account number |
| inst\_id | string | 4 | 0-1 | Institution identifier |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| PaymentInformationResponse | | | | |
| short\_card\_mask | string | 4 | 0-1 | Last 4 digits of card number. |
| number\_id | string | 200 | 0-1 | Document number identifier (National ID) |
| customer\_id | string | 16 | 0-1 | Customer number identifier |
| cardholder\_name | string | 200 | 0-1 | Cardholder name |
| account\_number | string | 32 | 0-1 | Credit account number (account type) with active credit service associated with the card, with a minimum value |
| currency | string | 3 | 0-1 | Account currency |
| tad | decimal | 22 | 0-1 | Total debt |
| last\_payment\_flag | int | 1 | 0-1 | Contains 1 if the card expires within the next month (30 days from the current moment), otherwise - 0 |
| due\_date | date |  | 0-1 | Due date |
| daily\_mad | decimal | 22 | 0-1 | MAD |
| customer\_name | string | 200 | 0-1 | Customer name |

* + 1. Errors

CARD\_NOT\_FOUND error <code> can be returned.

CARD\_INSTANCE\_NOT\_FOUND error <code> can be returned.

CUSTOMER\_ACCOUNT\_NOT\_FOUND error <code> can be returned.

* 1. DPP installments retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetDppInstallmentsRequest | | | | |
| dpp\_amount | decimal | 22 | 1-1 | Needed DPP amount |
| account | complex |  | 1-1 | Account identification data |
| calc\_algorithm | string | 8 | 0-1 | Calculation algorithm |
| installment\_count | integer | 4 | 0-1 | Needed count of installments |
| installment\_amount | decimal | 22 | 0-1 | Needed amount of each installment |
| fee\_id | long | 8 | 0-1 | Fee identifier |
| first\_installment\_date | date |  | 0-1 | Date of the first installment without time |
| inst\_id | integer | 4 | 0-1 | Institution identifier |
| **account** | | | | |
| account\_id | long | 12 | 0-1 | Account identifier |
| account\_number | string | 32 | 0-1 | Account number |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetDppInstallmentsResponse | | | | |
| dpp | complex |  | 0-1 | DPP general information |
| installments | complex |  | 1-1 |  |
| dpp | | | | |
| installment\_plan | complex |  | 0-1 | Installment plan information |
| algorithms | complex |  | 0-1 | Used algorithms |
| installment\_plan | | | | |
| installment\_count | integer | 4 | 0-1 | Total count of installments |
| interest\_rate | decimal | 22 | 0-1 | Used interest rate |
| algorithms | | | | |
| calc\_algorithm | string | 8 | 0-1 | Calculation algorithm |
| installments | | | | |
| installment | complex |  | 1-unbounded | Installment information |
| installment | | | | |
| installment\_number | integer | 4 | 0-1 | Sequence number of installment |
| installment\_date | date |  | 1-1 | Installment date |
| amount | decimal | 22 | 0-1 | Installment amount |
| interest | decimal | 22 | 0-1 | Installment interest |

* 1. Cardholder extended data retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardholderExtRequest | | | | |
| cardholder\_id | long | 12 | 0-1 | Cardholder identifier |
| cardholder \_number | string | 200 | 0-1 | Cardholder number |
| lang | string | 8 | 0-1 | Language |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* Set cardholder\_id

or set cardholder\_number and inst\_id

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CardholderExtResponse | | | | |
| surname | string | 200 | 1-1 | Cardholder surname |
| first\_name | string | 200 | 1-1 | Cardholder first name |
| second\_name | string | 200 | 0-1 | Cardholder second name |
| gender | string | 8 | 0-1 | Gender: GNDRMALE – Male  GNDRFEML – Female |
| birthday | date |  | 0-1 | Birthday |
| cardholder\_number | string | 24 | 1-1 | Cardholder number |
| cardholder\_name | string | 200 | 1-1 | Embossed name |
| document | complex |  | 0-\* | Cardholder’s documents |
| address | complex |  | 0-\* | Cardholder’s address |
| contact | complex |  | 0-\* | Cardholder’s contact |
| document | | | | |
| type | string | 8 | 1-1 | Document type |
| type\_name | string | 200 | 0-1 | Document type name |
| series | string | 200 | 1-1 | Document series |
| number | string | 200 | 1-1 | Document number |
| issuer | string | 200 | 0-1 | Organisation which issued document |
| issue\_date | date |  | 0-1 | Document issue date |
| expire\_date | date |  | 0-1 | Document expiration date |
| description | string | 200 | 0-1 | Description of document |
| **address** | | | | |
| address\_type | string | 8 | 1-1 | Address type. Please refer to ADTP dictionary |
| arddress\_type\_name | string | 200 | 1-1 | Name of the address type. |
| country | string | 3 | 1-1 | Country code |
| country\_name | string | 200 | 1-1 | Country name |
| postal\_code | string | 10 | 0-1 | Zip code |
| region | string | 200 | 0-1 | Region |
| city | string | 200 | 0-1 | City |
| street | string | 200 | 0-1 | Street |
| house | string | 200 | 0-1 | House/building |
| apartment | string | 200 | 0-1 | Apartment/flat |
| contact |  |  |  |  |
| contact\_type | string | 8 | 1-1 | Contact type. Please refer to CNTT dictionary. |
| contact\_type\_name | string | 200 | 1-1 | Name of the contact type. |
| commun\_method | string | 8 | 1-1 | Communication method. Please refer to CMNM dictionary. |
| commun\_method\_name | string | 200 | 1-1 | Communication method name. |
| commun\_address | string | 200 | 0-1 | Contact information. |

* + 1. Errors

CARDHOLDER\_NOT\_FOUND error <code> can be returned.

* 1. Financial Overview method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| FinancialOverviewRequest | | | | |
| card\_number | string | 28 | 1-1 | Card number |
| account\_number | string | 200 | 0-1 | Account number |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| FinancialOverviewResponse | | | | |
| cardholder\_name | string | 200 | 1-1 | Cardholder name |
| cardholder \_number | string | 200 | 1-1 | Cardholder number |
| accounts | Accounts |  | 0-1 | Linked acounts |
| Accounts | | | | |
| account | Account |  | 1-\* | Linked acount |
| Account | | | | |
| account\_number | string | 200 | 1-1 | Account number |
| account\_id | long | 200 | 0-1 | Account identifier |
| currency | string | 3 | 1-1 | Currency |
| amount\_due | decimal |  | 1-1 | Amount due |
| total\_amount\_due | decimal |  | 1-1 | Total amount due |
| due\_date | date |  | 1-1 | Due date |
| fees | Fees |  | 0-1 | Linked fees |
| Fees | | | | |
| fee | Fee |  | 1-\* | Each fee record |
| Fee | | | | |
| fee\_amount | decimal |  | 1-1 | Fee amount |
| fee\_currency | string | 3 | 1-1 | Fee currency |
| fee\_type | string | 8 | 1-1 | Fee type |

* 1. Credit Card Payments method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CreditCardPaymentsRequest | | | | |
| card\_number | string | 28 | 1-1 | Card number |
| account\_number | string | 200 | 0-1 | Account number |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CreditCardPaymentsResponse | | | | |
| account | Account |  | 1-\* | Account information |
| Account | | | | |
| account\_number | string | 200 | 1-1 | Account number |
| account\_id | long | 200 | 0-1 | Account identifier |
| currency | string | 3 | 1-1 | Currency |
| minimum\_amount\_due | decimal |  | 1-1 | Minimum amount due |
| total\_amount\_due | decimal |  | 1-1 | Total amount due |
| due\_date | date |  | 1-1 | Due date |
| payments | Payments |  | 0-1 | Linked fees |
| Payments | | | | |
| payment | Payment |  | 1-\* | Each payment record |
| Payment | | | | |
| amount | decimal |  | 1-1 | Payment amount |
| currency | string | 3 | 1-1 | Payment currency |
| ref\_number | string |  | 1-1 | Reference number |
| payment\_date | date |  | 1-1 | Payment date |

* 1. Customer Information by card method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CustomerInfoByCardRequest | | | | |
| card\_number | string | 28 | 1-1 | Card number |
| lang | string | 8 | 0-1 | Language |
| inst\_id | long | 4 | 0-1 | Institution identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| CustomerInfoByCardResponse | | | | |
| customer | Customer |  | 1-1 | Customer information |
| card | Card |  | 1-1 | Card information |
| accounts | Accounts |  | 0-1 | Accounts information |
| Customer | | | | |
| customer\_name | string | 200 | 1-1 | Customer name |
| customer\_number | string | 200 | 1-1 | Customer number |
| customer\_phone\_number | string | 200 | 0-1 | Customer phone |
| national\_id | string | 200 | 0-1 | National identification number |
| branch\_code | string | 200 | 0-1 | Branch code |
| addresses | Addresses |  | 0-1 | Address records |
| Addresses | | | | |
| address | Address |  | 1-\* | Address record |
| Address | | | | |
| address\_type | string | 8 | 0-1 | Address type |
| postal\_code | string | 12 | 0-1 | Postal code |
| country | string | 200 | 0-1 | Country |
| region | string | 200 | 0-1 | Region |
| city | string | 200 | 0-1 | City |
| house | string | 200 | 0-1 | House |
| apartment | string | 200 | 0-1 | Apartment |
| Card | | | | |
| card\_id | string | 16 | 0-1 | Card unique identifier |
| card\_number | string | 28 | 1-1 | Card number |
| card\_seq\_number | integer |  | 0-1 | Card sequence number |
| card\_expiry\_date | date |  | 1-1 | Card expiration date |
| client\_tariff | string | 200 | 0-1 | Client tariff |
| Accounts | | | | |
| account | Account |  | 1-\* | Linked account record |
| Account | | | | |
| account\_number | string | 200 | 1-1 | Account number |
| account\_id | long | 200 | 0-1 | Account identifier |
| currency | string | 3 | 1-1 | Currency |
| credit\_limit | decimal |  | 0-1 | Credit limit |
| interest\_rate | decimal |  | 0-1 | Interest rate |

* 1. Payment Information method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| PaymentInformationRequest | | | | |
| short\_card\_mask | string | 4 | 1-1 | Last 4 digits of card number |
| type\_id | string | 8 | 0-1 | Type dictionary article.  Default IDTP0045. |
| series\_id | string | 200 | 0-1 | Series identifier |
| inst\_id | long | 4 | 0-1 | Institution identifier |
| number\_id | string | 200 | 0-1 | Number identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| PaymentInformationResponse | | | | |
| short\_card\_mask | string | 4 | 0-1 | Last 4 digits of card number |
| number\_id | string | 200 | 0-1 | Number identifier |
| customer\_id | string | 200 | 0-1 | Customer identifier |
| cardholder\_name | string | 200 | 0-1 | Cardholder name |
| account\_number | string | 200 | 0-1 | Account number |
| currency | string | 3 | 0-1 | Currency |
| tad | decimal |  | 0-1 | Total amount due |
| last\_payment\_flag | integer | 1 | 0-1 | Last payment flag |
| due\_date | date |  | 0-1 | Due date |
| daily\_mad | decimal |  | 0-1 | Daily minimal amount due |
| customer\_name | string | 200 | 0-1 | Customer name |

* 1. Products method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ProductsRequest | | | | |
| customer\_id | long |  | 1-1 | Customer identifier |
| lang | string | 8 | 0-1 | Language.  Default LANGENG |
| inst\_id | long | 4 | 1-1 | Institution identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| ProductsResponse | | | | |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| customer\_id | long |  | 1-1 | Customer identifier |
| product | Product |  | 0-\* | Products information |
| Product | | | | |
| id | long |  | 1-1 | Product identifier |
| name | string | 200 | 1-1 | Product name |
| description | string | 200 | 0-1 | Product description |
| product | Product |  | 0-1 | Child product item |

* 1. Transactions method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| TransactionsRequest | | | | |
| customer\_id | long |  | 1-1 | Customer identifier |
| lang | string | 8 | 0-1 | Language.  Default LANGENG |
| inst\_id | long | 4 | 1-1 | Institution identifier |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| TransactionsResponse | | | | |
| inst\_id | long | 4 | 1-1 | Institution identifier |
| customer\_id | long |  | 1-1 | Customer identifier |
| transaction | Transaction |  | 0-\* | Transactions information |
| Transaction | | | | |
| transaction\_type | string | 8 | 1-1 | Transaction type |
| date\_time | date |  | 1-1 | Transaction date and time |
| response\_code | string | 200 | 0-1 | Response code |
| masked\_pan | string | 28 | 0-1 | Masked card number |
| account\_number | string | 200 | 0-1 | Account number |
| card\_type | string | 8 | 0-1 | Card type |
| terminal | string | 200 | 0-1 | Terminal name |
| amount | decimal |  | 0-1 | Amount value |
| currency | string | 3 | 0-1 | Currency |
| debit\_credit\_sign | string |  | 0-1 | Sign of debit/credit |
| is\_reversal | boolean | 1 | 0-1 | Sign of reversal |

* 1. unbilled debts retrieval method
     1. Request format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetUnbilledDebtsRequest | | | | |
| account\_id | long | 12 | 0-1 | Account identifier  Should be sent if pair account\_number and inst\_id isn’t sent |
| account\_number | string | 32 | 0-1 | Account number  Should be sent if account\_id isn’t sent |
| inst\_id | integer | 4 | 0-1 | Institution identifier  Should be sent if account\_id isn’t sent |

* + 1. Response format

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag name | Data type | Length | Occurrence (min-max) | Description |
| GetUnbilledDebtsResponse | | | | |
| debt | Debt |  | 0-\* | DPP general information |
| Debt | | | | |
| debt\_id | long | 16 | 1-1 | Internal debt ID |
| card\_id | string | 18 | 0-1 | Internal card ID or card UID |
| card\_mask | string | 24 | 1-1 | Card mask |
| sttl\_type | string | 8 | 1-1 | Settlement type (dictionary article) |
| oper\_type | string | 8 | 1-1 | Operation type (dictionary article) |
| oper\_type\_desc | string | 200 | 0-1 | Operation type description |
| terminal\_type | string | 8 | 1-1 | Terminal type (dictionary article) |
| terminal\_type\_desc | string | 200 | 0-1 | Terminal type description |
| merchant\_name | string | 200 | 0-1 | Merchant name |
| merchant\_number | string | 200 | 0-1 | Merchant number |
| oper\_date | date |  | 1-1 | Operation date |
| posting\_date | date |  | 0-1 | Operation processing date |
| oper\_amount | decimal |  | 0-1 | Operation amount |
| oper\_currency | string | 3 | 0-1 | Operation currency |
| debt\_amount | decimal |  | 1-1 | Amount of created debt |
| debt\_currency | string | 3 | 1-1 | Debt currency |
| mcc | string | 4 | 0-1 | MCC (merchant category code) |

* + 1. Errors

PRD\_NO\_ACTIVE\_SERVICE, ACCOUNT\_NOT\_FOUND, and ACCOUNT\_NUMBER\_NOT\_UNIQUE errors codes may be returned.