Tapp Market XML-RPC API

Version 2.0.0

The XML-RPC API allows servers to use Tapp Market to sell digital products such as prepaid phone top-ups or prepaid electricity.

The API implements two methods:
- **topUpRequest**, and
- **topUpInquiry**

topUpRequest is used to top up e.g. a customer's phone or electricity subscription. topUpInquiry can be used to check the status of a transaction made via topUpRequest.

Prerequisites

To use the API, you need to have an agent user account in Tapp Market. The user account needs to have a PIN code enabled; this together with an user ID is used to authenticate API calls. The PIN code can be managed in Tapp Market web UI's user profile management, and your user ID is provided by Tapp customer support.

Additionally, Tapp customer support needs to enable the user as an API user.

HTTP endpoint

The API endpoint is **https://api.tapp.fi/h2h/xml-rpc/v2**

The geographical location of our servers is Singapore.

Request: topUpRequest

The parameters of method topUpRequest are listed in the following table. All parameters are required.

The API attempts to process the top-up synchronously, so that the final result (success or failure) would be available in the response. However, if the processing is not complete in about 50 seconds, pending status is reported and you can use topUpInquiry to check for later status updates. This means you can always expect a response in less than 60 seconds.

Key	Data type	Description
USER_ID	int	ID of the user making the request
PIN	string	PIN code for user authentication
REQUEST_ID	string	8 to 20 character generated ID that uniquely identifies the request
CUSTOMER_ID	string	phone number or PLN ID that is topped up
PRODUCT_CODE	string	product code (a document listing valid product codes can be downloaded from https://market.tapp.fi/app/sms-product-catalog)

Request: topUpInquiry

The parameters of method topUpInquiry are listed in the following table. All parameters are required.

Key	Data type	Description
USER_ID	int	ID of the user making the request
PIN	string	PIN code for user authentication
REQUEST_ID	string	8 to 20 character ID of the request that is inquired

Responses

Responses to topUpRequest and topUpInquiry have similar format; the parameters are listed in the table below.

Key	Data type	Description
RESPONSE_CODE	string	code specifying the result of the top-up request, see listing of codes below
REQUEST_ID	string	the request ID sent in the related request
TRANSACTION_ID	string	20-character ID for the top-up transaction in Tapp Market
MESSAGE	string	description of the top-up's status, at most 200 characters
SN	string	serial number for the top-up, at most 100 characters (only present for successful top-ups)
PRICE	int	cost of the top-up = amount deduced from the user's balance (only present for successful and pending top-ups)

only in topUpRequest response:

BALANCE	int	the user's remaining balance in Tapp Market

Possible response codes:

Response code	Description
"00"	top-up successful
"68"	top-up pending, call topUpInquiry with the same REQUESTID to check future status updates
"10"	top-up failure caused by insufficient balance for the user in Tapp Market
"11"	general top-up failure (typical reasons: product supply temporarily unavailable or typo in NOHP)
"12"	top-up transaction canceled by admin and refunded
13-29	reserved for unsuccessful transaction states

Response code	Description
"80"	authentication failure: MSISDN and PIN did not match, or the user is not enabled as a H2H API user
"81"	invalid product code in topUpRequest
"82"	bad request, some information in the request was missing or in invalid format
"83"	unknown REQUESTID in topUpInquiry
"84"	REQUESTID is already used for an earlier topUpRequest by the same user
85-89	reserved for client-related errors
"90"	internal error in Tapp Market service
"91"	product temporarily unavailable (usually only for a short time, ~minutes)
92-99	reserved for server errors

Client-related errors (response codes "8x") mean that the request was rejected by the API and no top-up transaction was created. Inquiry for a request that hasn't created a transaction returns "83". In case of "90" (internal error) there may be a transaction created depending on at which phase of processing the error occurred. Inquiry can be used to check the transaction's status in this case.

XML-RPC message format and request examples

The following example details the complete XML body of a **topUpRequest**.

```xml
<?xml version="1.0"?>
<methodCall>
  <methodName>topUpRequest</methodName>
  <params>
    <param>
      <value>
        <struct>
          <member>
            <name>USER_ID</name>
            <value><int>994141</int></value>
          </member>
          <member>
            <name>PIN</name>
            <value><string>4526770012</string></value>
          </member>
          <member>
            <name>REQUEST_ID</name>
            <value><string>DJ4kw5qw30uDJZTxkRnN</string></value>
          </member>
          <member>
            <name>CUSTOMER_ID</name>
            <value><string>0818111333</string></value>
          </member>
          <member>
            <name>PRODUCT_CODE</name>
            <value><string>XL5</string></value>
          </member>
        </struct>
      </value>
    </param>
  </params>
</methodCall>
```

example of **topUpRequest response with success status:**

```xml
<?xml version="1.0"?>
<methodResponse>
 <params>
    <param>
      <value>
        <struct>
          <member>
            <name>RESPONSE_CODE</name>
            <value><string>00</string></value>
          </member>
          <member>
            <name>REQUEST_ID</name>
            <value><string>DJ4kw5qw30uDJZTxkRnN</string></value>
          </member>
          <member>
            <name>TRANSACTION_ID</name>
            <value><string>94710159125169130916</string></value>
          </member>
          <member>
            <name>MESSAGE</name>
            <value><string>BERHASIL.SAL=13.604.340,HRG=5.950</string>
            </value>
          </member>
          <member>
            <name>PRICE</name>
            <value><int>5950</int></value>
          </member>
          <member>
            <name>BALANCE</name>
            <value><int>13604340</int></value>
          </member>
        </struct>
      </value>
    </param>
  </params>
</methodResponse>
```

example of **topUpInquiry:**

```xml
<?xml version="1.0"?>
<methodCall>
   <methodName>topUpInquiry</methodName>
   <params>
     <param>
       <value>
         <struct>
           <member>
             <name>USER_ID</name>
             <value><int>994141</int></value>
           </member>
           <member>
             <name>PIN</name>
             <value><string>4526770012</string></value>
           </member>
           <member>
             <name>REQUEST_ID</name>
             <value><string>6x4iDpF6nPuGN6y40ul1</string></value>
           </member>
         </struct>
       </value>
     </param>
   </params>
</methodCall>
```

example of **topUpInquiry response:**

```xml
<?xml version="1.0"?>
<methodResponse>
 <params>
     <param>
       <value>
         <struct>
           <member>
             <name>RESPONSE_CODE</name>
             <value><string>11</string></value>
           </member>
           <member>
             <name>REQUEST_ID</name>
             <value><string>6x4iDpF6nPuGN6y40ul1</string></value>
           </member>
           <member>
             <name>TRANSACTION_ID</name>
             <value><string>26414814006177141415</string></value>
           </member>
           <member>
             <name>MESSAGE</name>
             <value><string>GAGAL, XL5.081811199999.</string>
             </value>
           </member>
         </struct>
       </value>
     </param>
   </params>
</methodresponse>
```