OTTVOUCHER

OTTMOBILE

OTT Mobile REDEMPTION Specification

Version 4.3

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Contents

Overview

This document provides to document the web service that is used to provide access to the OTT-VOUCHER Redemption functions. It is intended to be simple and easy for a developer to utilise in order to implement the web services.

The username, password and, web service URL are static and will not change unless instructed in writing, or upon your request, will be supplied separately as they are variables and you must make your calls flexible to cater for this.

All calls require the data to be hashed using an API Key which is fetched from an API call using the username and password, this API Key must be stored, it is used to protect the APIs and verify the data. YOU NEED TO STORE IT for use by subsequent calls to the other functions. This can be refreshed periodically to ensure safety, log in to the OTT Solution Provider portal to reset the API.

The API calls are behind a firewall and are encrypted using HTTS and TLS 1.2

Call the RemitVoucher API which will attempt to redeem the voucher PIN sent and return the voucher value. Should you need to know the voucher value before then call the CheckVoucher API. If a timeout occurs you can check the transaction with the CheckRemitVoucher API.

Requirements

1. The ability to consume REST HTTP POST calls via an SSL encrypted Internet location. You must use "application/x-www-form-urlencoded" as the content type.
2. Login Credentials to the OTT-Mobile Technologies system.
3. Please obtain the BASEURL of the Web Service from OTT Mobile technologies.
4. You will need a username and password to call the web services, these will be used in the header using BASIC AUTHENTICATION.
5. You will need to call the GetAPIKey API and store the API Key on intial call and when it changes in a safe location for use in all other API Calls. You can also generate it on the merchant portal.
6. You will need to give OTT Mobile the IP address that your service will call from.
7. To Reset the APIKey you will need a logon into the Merchant Portal.
8. Appendix B has the Testing Parameters required above.

Basic Functionality

To enable the redemption of OTT vouchers of different values via REST based web services, the web service can be accessed using HTTP POST using FORM variables, not JSON over secure HTTPS with TLS1.2 minimum.

Basic Authentication

Any call to any API must include Basic Authentication.

The Authorization field is constructed as follows:

1. The username and password are combined with a single colon (:). This means that the username itself cannot contain a colon.
2. The resulting string is encoded into an octet sequence. The character set to use for this encoding is by default unspecified, as long as it is compatible with US-ASCII, but the server may suggest use of UTF-8 by sending the charset parameter.[7]
3. The resulting string is encoded using a variant of Base64.
4. The authorization method and a space (e.g. "Basic ") is then prepended to the encoded string.

For example, if the browser uses Aladdin as the username and OpenSesame as the password, then the field's value is the base64-encoding of Aladdin:OpenSesame, or QWxhZGRpbjpPcGVuU2VzYW1l. Then the Authorization header will appear as:

Authorization: Basic QWxhZGRpbjpPcGVuU2VzYW1l

This must be included as a header in all calls to these APIs.

HASH Data using the API Key

Any call to any API must include the SHA256 Hash of the data. To Create the Hash follow these steps

For each of the POST parameters passed create a string and concatenate each parameter (the data only not the parameter name) in order of the alphabetic name of the parameter.

Concatenate the APIKey and the string created above to create a string to be hashed and then Compute the SHA256 HASH of this string.

Example (see CheckVoucher – apikey is ace4e782-e953-45d5-9f2a-aa1498c830ed) :

      VendorID = 11, voucherPIN=123456789012

String to hash = ace4e782-e953-45d5-9f2a-aa1498c830ed11123456789012
Hash is c399a3964ec6d7e3e7804fa56d14c78e2a1a880c1a702127d96a790ec6332bf0

(To test use the online hash generator at https://emn178.github.io/online-tools/sha256.html)

The API Key

The API Key is used to create a Hash of the data sent in other APIs to ensure that the data has not been tampered with and to ensure that the originator is correct.

On the first call the GetAPIKey a unique key will be returned, this key must be stored for all calls to the other APIs from this point on, or until a future call to GetAPIKey returns an HTTP Status of 200, then the API Key returned must again be saved and used for further future calls to the other APIs. You can log in to the OTT-Mobile Solution Provider Portal to set the API Key to change at any time, so this call must always be made prior to calls to the other APIs as it will either return a new APIKey or a 201 status with an errorCode of 2, meaning use the current APIKey.

URL:
/api/v1/GetAPIKey

Method:
POST

Data POST Parameters:
None

Successful Response:
Code: 200
Content: {"success": "true",
               "apiKey": "ace4e782-e953-45d5-9f2a-aa1498c830ed",
               "message": "New API Key Created"}
Code: 201
Content: {"success": "false",
               "errorCode": "2",
                "message": "Use Your Exisiting API Key"}

UnSuccessful Response:
Code: 401
Content: {"success": "false",
                "message": "Incorrect Username or Password"}
Code: 404
Content: None

CheckVoucher

The API Key is used check the validity of a voucher PIN. You must pass the `vendorID` and the `voucherPIN`, see below.

URL:
/api/v1/CheckVoucher

Method:
POST

Data POST Parameters:

vendorID	The VendorID supplied to you by OTT-Mobile.
voucherPIN	The PIN of the Voucher that you wish to Check.
Hash	The SHA256 hash of the data and the API Key

Successful Response:
Code: 200
Content: {"success": "true",
"message": " Voucher Valid",
"serial": "300001095954",
"value": "30.0000"}

UnSuccessful Response:
Code: 201
Content: {"success": "false",
"errorCode": "1",
"message": " PIN too short"}

Code: 401
Content: {"success": "false",
"message": " we are experiencing a problem, please try later "}

Code: 404
Content: None

RemitVoucher

To Redeem a single voucher, call this API, the voucher will be checked and redeemed if OK, the API will return success or failure and the value of the voucher. See Appendix A for error codes. If you submit an amount > 0 then the mobile number is compulsory, this is to enable any remaining balance to be allocated to the client's mobile number, otherwise the entire voucher value will be redeemed, you cannot redeem an amount greater than the voucher. The balance of the voucher is returned along with the redeemed amount. **When a timeout occurs, please do not retry the RemitVoucher, you must call the CheckRemitVoucher API to see if the RemitVoucher was successful.**

URL:
/api/v1/RemitVoucher

Method:
POST

Data POST Parameters:

```
account            The Users Account Number.
amount             The amount to pay (must be <= voucher value)
clientId           The Clients ID or other identifying ID
mobile             The Mobile Number of the client
pin                The Voucher PIN.
uniqueReference    A Unique reference in your system.
vendorID           The VendorID supplied to you by OTT-Mobile.
hash               The SHA256 hash of the data and the API Key
```

Successful Response:
Code: 200
Content:
```
{    "success": "true",
      "voucherID": "12345678",
      " voucherAmount": "8.50",
      "voucherBalance": "1.50" }
```

UnSuccessful Response:
Code: 201
Content:
```
{    "success": "false",
      "errorCode": "1",
       "message": " The Unique Reference cannot be blank " }
```
Code: 500
Content:
```
{    "success": "false",
      "message": " we are experiencing a problem, please try later " }
```

Code: 401
Content: "Authentication Failed"

CheckRemitVoucher

To Check if the previous RemitVoucher was successful, you pass it the uniqueReference that you passed the RemitVoucher API and this will be looked up.

URL:

/api/v1/CheckRemitVoucher

Method:

POST

Data POST Parameters:

```
uniqueReference      The Unique reference you used to remit.
hash                 SHA256 hash of the API Key and the uniqueReference.
```

Successful Response:

Code: 200

Content: {"success": "true",

" voucherAmount": "8.50",

"voucherBalance": "1.50" }

UnSuccessful Response:

Code: 201

Content: {"success": "false",

"errorCode": "1",

"message": "Invalid Reference"}

Code: 500

Content: {"success": "false",

"message": " we are experiencing a problem, please try later "}

Code: 401

Content: "Authentication Failed"

APPENDIX A – RemitVoucher Error Codes

1   An Error Occurred (System Error)
2   An Error Occurred (System Error)
3   An Error Occurred while trying to redeem (System Error)
4   Invalid Voucher
5   Voucher has expired
6   Voucher has not been sold
7   Voucher has already been used (see CheckRemitVoucher)
8   Voucher was cancelled
9   Error whilst Redeeming Voucher (System Error)
10   Error Checking the Voucher (System Error)
11   You are not authorised to Redeem
12   Voucher Value is zero
13   Voucher Value must be equal or more that the amount to pay
14   The Mobile Number is mandatory if the value is supplied
15   Error whilst Redeeming Voucher (System Error)

APPENDIX B – Testing Parameters

Test Parameters (API Calls):

BaseURL: https://test-api.ott-mobile.com
Username: Ask OTT For aa API Username
VendorID: 11
Password: Generate your own on the portal
APIKey: Generate or reset on the portal

Login Parameters (SP Portal) to reset API Key:

BaseURL: https://test-merchant.ott-mobile.com
Username: The email address you gave OTT-Mobile
Password: Use the "Forgot Password?" on the login page of the portal

Getting Test Voucher

1. Send an SMS with the text TESTPIN to 45827 to get a 1 rand Voucher.
2. Send an SMS with the text TESTPIN 100 to 45827 to get a 100 rand Voucher.

You can request a value from 1 to 5000