Smartcall Web Service V3 (RESTful)

Technical Interface Specification

Version 1.2.3

Document Change History

Issue	Revision	Date	Author	Reason for Change
1	1.0.0	2017-07-27	Derek Scotney	Initial release
2	1.0.1	2017-08-04	Derek Scotney	Security information
3	1.0.2	2017-08-07	Derek Scotney	Product offering update checks using Etag headers implemented
4	1.0.3	2017-09-04	Derek Scotney	Added a "Getting Started" section
5	1.0.4	2017-09-08	Derek Scotney	Added "FAQ" and "API Operations" sections
6	1.0.5	2017-11-15	Derek Scotney	Added "Cashup" functionality to the Smartload operations and "Token" management functionality to the Authentication operations
7	1.0.6	2018-01-10	Derek Scotney	- Added information regarding the automatic token invalidation after 4 hours of non-usage - Added error code and response code information
8	1.0.7	2018-05-23	Derek Scotney	Added "SIM Network" query
9	1.0.8	2018-06-21	Derek Scotney	Added "Query SIM RICA status"
10	1.0.9	2018-08-01	Derek Scotney	- Added reminder to save Smartload reference
11	1.1.0	2019-01-22	Derek Scotney	- Added synchronous recharging - Added mobile network connectivity status check (up/down) - Removed recharge cancellation functionality
12	1.1.1	2019-02-22	Derek Scotney	- Added more information to the synchronous recharging endpoint
13	1.1.2	2019-05-07	Derek Scotney	- Updated the information related to the synchronous recharge response code
14	1.1.3	2019-05-21	Derek Scotney	- Updated the information relating to the smsProviderIdentifier field in the synchronous recharge request
15	1.1.4	2019-05-29	Derek Scotney	- Added a new endpoint under RICA whereby an MSISDN can be queried to see if it is a) a Smartcall RICA agent, b) if the agent is enabled, and c) if the agent falls under the clients master dealer
16	1.1.5	2019-06-05	Derek Scotney	Updated the "Synchronous Recharge" endpoint description to remove the statement that a "pending" response can be returned.
17	1.1.6	2019-07-25	Derek Scotney	Added result code 3 to Synchronous Recharge response
18	1.1.7	2019-08-22	Derek Scotney	Added electricity prevend.
19	1.1.8	2019-10-01	Derek Scotney	Added recharge cancellation endpoint
20	1.1.9	2020-01-16	Derek Scotney	Added RICA agent creation (not generally available to web service clients)
21	1.2.0	2020-02-04	Derek Scotney	- Added "recharge" and "payment" indictators to each product in the product list to indicate which web service endpoint to use. - Added Payments endpoint group with the initial payment products being EasyPay and DSTV
22	1.2.1	2020-04-28	Derek Scotney	Added statusId info to recharge status enquiry

				response
23	1.2.2	20-05-21	Derek Scotney	No functional changes. Added mobile network recharge error codes. Possibly relevant to the synchronous recharging endpoint users.
24	1.2.3	20-07-14	Derek Scotney	- Changes to RICA request. It is now mandatory to supply an alternative contact number for the client as well as providing an expiry date in the event of a passort being used as identification - A new transaction query endpoint has been added with which one can query a transaction using the Smartload transaction ID as this provides a month transaction history

Contents

Figures

Tables

Abbreviation List

FTP	File Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
ICCID	Integrated Circuit Card ID 19 or 20-digit serial number of the SIM card
MSISDN	Mobile Subscriber Integrated Services Digital Network Number (or cell phone number)
OAUTH 2.0	OAuth 2.0 is an authorization framework that enables applications to obtain limited access to user accounts on an HTTP service
REST	Representational State Transfer
SIM	Subscriber Identity Module (Card)
SOAP	Simple Object Access Protocol
SSL	Secure Socket Layer
USSD	Unstructured Supplementary Service Data
WS	Web Service

1. Introduction

This document describes Smartcall's RESTful Smartload web service which provides the opportunity for dealers to directly access Smartload and SmartRica by creating their own client interface.

The purpose of this document is to provide a clear technical guideline on how to connect to the webservice and how to call the individual functions as provided by the web service. This would cover amongst others, calls to perform and query individual airtime recharge requests.

Smartload specific details and the associated rules are covered in the complementary Business Specification document. The Business Specification document should be read in conjunction with this document when implementing your own client solution.

2. Audience

This document is for developers wishing to create a secure client to connect to Smartcall's web service using the new RESTful interface, to access both Smartload and SmartRica functionality.

3. RESTful alternative to V2

Smartcall has released this RESTful version of its V2 web service to both provide a RESTful web service as well as changing its web security model from "WS-Security" to the "OAUTH 2.0" model. The new web service (V3) runs in conjunction with V1 and V2, and existing users need not do anything.

New users should preferably use the new service unless there is a specific requirement to use V2.

4. Documentation & Swagger UI

The RESTful webservice interface is described in a swagger file which can be accessed (**for the test service**) at:

https://www.smartcallesb.co.za:8101/webservice/swagger.json

The content of this file describes each endpoint, the HTTP method (GET/POST/DELETE) with which to access it, and the data models of all the JSON messaging objects. A web browser based interface to this file is provided (Swagger UI) at:

https://www.smartcallesb.co.za:8101/webservice/api

This web interface also provides the functionality to test each endpoint.

***** Launching the web page from the link above may result in the "https" being removed in the browser and the page failing to load. In this case, simply add the "https" back into the url.

****** The URL is case sensitive

5. Authentication

As mentioned above, the RESTful web service security will be using the (2-Step) OAUTH 2.0 model over HTTPS. Before any web service calls (other than the ping test) can take place successfully, the user must first be authenticated and then use the security token returned in all subsequent calls.

Note: Unlike V1 & V2 when the Smartload MSISDN/PIN was used for authentication, V3 uses a user defined username and password combination. One or more Smartload accounts can then be linked to those user credentials.

The Authentication message flow is described below.

Step 1: A login/authentication is done by submitting an HTTP POST request to the endpoint "…/webservice/auth" with the "Authorization" field in the HTTP header populated with "Basic" and the "username:password" string Base64 encoded.

Step 2: The login credentials are validated by the Smartcall server and if successful, a response object containing a time-based token is returned.

Step 3: All endpoints are now accessible with the HTTP header field "Authorization" populated with "Bearer" and the supplied token.

Step 4: Although the security token will **automatically expire after 24 hours (*or 4 hours of no usage*)**, functionality is provided to invalidate the token at the end of a session if a user so wishes. This is accomplished by submitting an HTTP DELETE request to the same endpoint used for authentication Once again, the HTTP header field "Authorization" populated with "Bearer" and the supplied token is required.

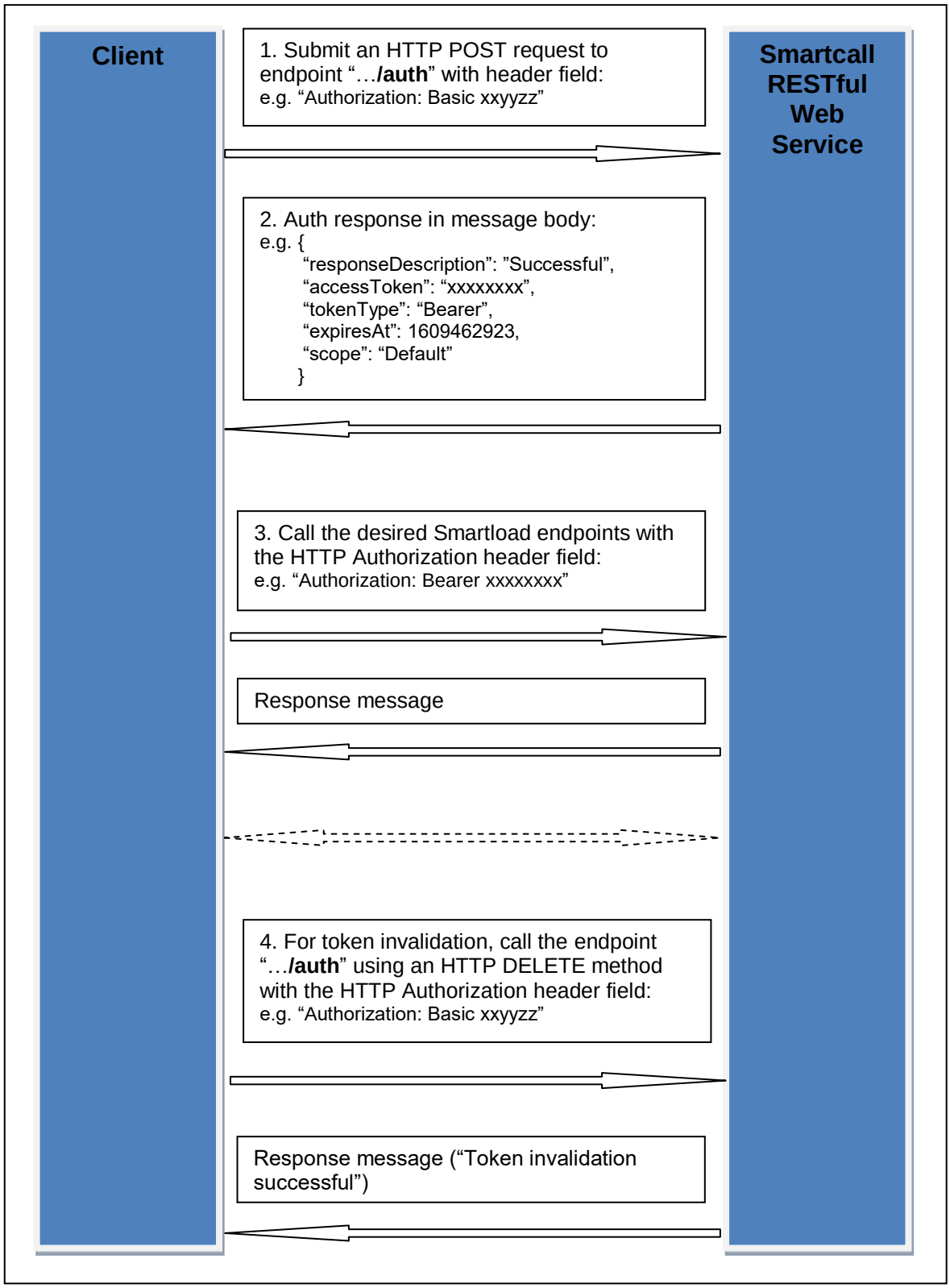

Figure 1: Authorization Message Flows

6. Getting started

To enable you to get started, you will need a username and password. These can be chosen by you and provided to the relevant developer/sales person you are in contact with. Please also provide 1 or more Smartload account numbers (MSISDNs) in order to be able to access the API business functions (balance/recharge etc).

Using these credentials you with then be able to test on the QA system using the URLs provided above. Once you are ready to access the LIVE API, you can provide us with the credentials you would like to use so we can set up your account. The URL remains the same with the exception of the port which changes to 8100.

Note: It is possible to restrict access to a specific account on an IP address basis. If you require this, please also supply the IP address(s) of the machines that will be interacting with the API.

7. Etag headers for product offering update checking

To make it easier to check for changes to the Smartload product offerings, "Etag" and "If-None-Match" HTTP headers have been implemented for the "products" and "networks" endpoints. In the response message of the standard GET method call, a new header "Etag" is returned which contains a hash value of the result data on the server side. In subsequent similar transactions, you can include the header "If-None-Match" with the last obtained Etag value. Should the data (product/network) not have changed, the response from the server will have an HTTP status code of 304 (Not Modified) and the body will be empty. Should the data have been modified, the standard result data will be returned along with the Etag header containing the new hash value.

To see this in a practical example, please use the Swagger UI interface provided.

8. API Smartload Operations

a. Balance Check

Provides the functionality to perform a balance check on any Smartload MSISDN registered to the user.

b. Get product information

Obtains information for a specified product ID. *Please note the inclusion of indicators showing if the the product is a "recharge" product (can be used via "smartload/recharges" or "smartload/v2/recharges" endpoints) or a "payment" product, which indicates that the relevant provider under the "/payments" endpoint must be used.*

c. Get single network products

Lists all the products available from a specified network.

NOTE: Also see the highlighted section in (b) above

d. Get all network products

Returns a list of all the Smartload products available from all the networks.

NOTE: Also see the highlighted section in (b) above

e. Dealer registration check

Checks whether the specified MSISDN is a registered Smartload dealer.

f. Recharge request

Provides the web service user with the functionality to perform a recharge operation with either a mobile network product or electricity. It should be noted that a successful response only indicates a successful submission to Smartcall and not a final transaction status. This status can be obtained using the "Transaction Query" operation.

NB: Please store the Smartload reference number returned from a successful recharge transaction as you will need it for doing recons with our reports.

g. Synchronous recharge request

Provides the web service user with the functionality to perform a fully synchronous recharge operation for mobile network products. Electricity purchases can not be handled synchronously and will function the same as with a normal recharge request, and the final status of the recharge will need to be queried using the "Transaction Query" operation. The responses received from all other recharge requests indicate a final transaction status.

Please note that the field "smsProviderIdentifier" *should only be populated* in the recharge request if a branded SMS should be sent.

In the QA environment, recharge requests are handled by a basic "**network simulator**", and as such, predefined responses for various scenarios are returned. Current features are:

- The simulator drops each network for 5 minutes individually to allow for failure scenarios to be tested. E.g Vodacom down, all up, MTN down, all up…
- Recharges of R11 are interpreted as "Business failures". This is when the network sends a response indicating that the recharge is invalid.
- Recharges of R13 are interpreted as "Network pending" results (see below).

NOTE**: In the event of a recharge failure, the "error" field in the response message will be populated. The "statusCode/statusMessage" fields may also be populated. If the "error" field is ***null, and the "statusCode" is 0, then the transaction should be deemed as "SUCCESSFUL". A ***non-zero*** or ***null*** "statusCode" should always be accompanied by a populated "error" field. The "statusCode" field values are:

0 – Successful
1 – Application/Internal error
2 – Business error (e.g. invalid recharge request information)
3 – Network pending (e.g. when we have submitted a recharge to a network and receive a response that is neither success nor failure such as "busy processing")

Where possible, the "statusMessage" field is populated with the **mobile network recharge response** information, and where these fields are not populated, the error field provides relevant information.

In the event of a "statusCode 3", the recharge final state should either be queried via the transaction enquiry endpoint, and/or queried with Smartcall Customer Care who will check with the relevant mobile network.

h. Batch recharge request

This is similar to the "Recharge Request", but differs in that a batch of up to 100 recharge requests can be submitted within a single operation.

i. Cancel recharge request

This is operation allows for recharges that have not yet been submitted to the relevant network to be cancelled, and would typically be used should a recharge remain in a "Pending" state past a client defined time threshold where they want to give a final recharge status to a customer. This operation would only be useful for the "asynchronous recharge" (old/initial recharge) and electricity recharges as with the new "synchronous" recharge the final state is returned in the recharge response. Once a recharge has been submitted to the relevant network, cancellations will not be possible. In the even that a client uses more than 1 Smartload ID / MSISDN, the MSISDN that was used for the recharge must be use din the cancellation request. The cancellation can be done using either the client reference number used for the recharge, or the Smartload reference returned in the recharge response. Populating the request with both references is also possible. For a table of the response codes and messages returned see Table 3.

j. Recharge Prevend request

This is not a recharge operation, but a query to ascertain if a recharge operation "would be successful", and is only available for Electricity and PINLESS products on the Vodacom and MTN networks. It is a much quicker operation that a recharge as it is submitted directly to the relevant network, and a response code and the unfiltered response is returned. A SUCCESS response code, indicates the recharge will go through. APP_ERROR indicates the recharge will not go through, and SYS_ERROR indictates an

infrastructure issue. An actual recharge performed in conjunction with this prevend MUST use the same client reference number when recharging with mobile networks. This is not required for an Electricity prevend.

k. Funds transfer

This provides the facility to transfer funds between two Smartload accounts.

l. Order batch vouchers

This is not a recharge operation, but rather an order for a batch of "PINNED" vouchers. Once the request has been processed, the response message will contain all the information required for retrieving the file containing the voucher PINs.

m. Retrieve batch order file

This is the subsequent call to the call listed above. By providing the relevant information, a password protected "zipped" file containing the voucher PINs is downloaded. The password to the file is provided in the initial request response.

n. Recreate previous order file

In the event that the information returned in the initial order response get lost (e.g. the password), this operation "re-creates" the file with the same content but a new password that is returned in the reponse.

o. Transaction enquiry (Client Reference)

This operation provides the user with the abililty to query a specific transaction status using the client reference provided with the recharge request. A typical case would be after a recharge has been submitted, one would use this operation to find out is the recharge was successful. The status will be "pending" until a final status is received from the relevant network, in which case the status will move to "success" or "failure". See Chapter **Error! Reference source not found.** for status Id information. It should be noted that the transaction history available for querying by client reference is only **1 week**. For querying transactions older than 1 week, the "Transaction enquiry (Smartload Reference)" must be used.

p. Transaction enquiry (Smartload Reference)

This operation provides the user with the abililty to query a specific transaction status using the Smartload reference provided in the response to a recharge request. The response using this query is the same as for the query using the Client reference, however **a month** of transaction history is available using this query.

q. Cashup report (daily)

This operation provides the user with the abililty to get a basic cashup report for the specified Smartload account for the current day.

r. Cashup report (period)

This operation provides the user with the abililty to get a basic cashup report for the specified Smartload account for the period specified.

9. API SmartRica Operations

a. Change RICA ownership

Provides the functionality to change the RICA registered owner of a SIM.

b. Submit registration

Provides the functionality to submit a new RICA registration. In the c ase of a passport being used as the means of identification, the passport expiry date MUST be provided and should be valid for at least the next 3 months. An alternative contact number for the user of the SIM must also be provided.

c. Query SIM RICA status

Provides the functionality to query the status of a submitted RICA request

d. Agent RICA query

Queries the RICA status of a provided MSISDN to determine if the MSISDN is:

- A Smartcall RICA agent
- In an *enabled* state
- If the agent falls under the clients master dealer

e. Register RICA agent

Submits all information required to register a new RICA agent which includes:

- All identity and residential information
- An image (base64 encoded, 300k max size) of the persons ID document
- An image (base64 encoded, 300k max size) of the persons Face
- An image (base64 encoded, 300k max size) of the persons Proof-of-Address

NOTE: This functionality is not generally available to all web service RICA users and request to use it will need to be made via the Smartcall Sales department.

f. RICA Agent registration status

Queries the status of a previously submitted RICA agent registration. If the registration fails, a new registration operation will be required with the necessary information corrected.

10. API Payment Operations

Due to the nature of payments via various payment providers, it is not possible to use a generic request and response interface as with the "Smartload" products. As such, each payment provider will have their own request/response formats.

1. EasyPay

Provides the facility to make payments for the products listed as EasyPay "payment" items in the product list.

EasyPay Account Types	Reference number descriptions
epNo	EasyPay numbers start with a 9 and are usually prefixed with a number of >>>> characters
noticeNo	Payment of a traffic fine (Enter all characters even dashes '-'s and slashes '/'). In the case of slashes, the query to the web service will need to be URL encoded (e.g. '/' replaced by '%2F' etc)

a. Payment request

Provides the functionality to make an Easypay payment for one of the products listed under the "EasyPay" network in the products list.

b. Payment query

Provides the functionality to do a query to EasyPay on the status of an account.

2. DSTV

This operation provides the facility to make DSTV account payments.

a. Payment request

Provides the functionality to make a payment for a DSTV account. Please note that type of account must be provided (**SUBS** *(subscription)* or **TVOD** *(BoxOffice)*) as well as the account number or account holder ID number.

b. Account query

Provides the functionality to query a customer's account status. Once again, the account type must be provided as well as the account number or account holder ID number.

11. API Utilities Operation

a. SIM Network

Provides the facility to check the current mobile network of a SIM by passing in the MSISDN.

b. Mobile network status

This operation provides the user with the abililty to get the current connectivity status between Smartcall and the various mobile networks.

12. API Authentication Operations

a. Authentication

Provides the functionality to authenticate a user using Basic authentication, which on success returns a JWT token (valid for 24 hours) for use in subsequent transactions with the API.

b. Token invalidation

Allows a user to invalidate a token once they have finished transacting instead of waiting until the token expires. **Tokens should be reused as much as possible**.

c. Token flush

Invalidates ALL the current users tokens. In the event the user is accessing this endpoint using a token for authentication, the current token will also be invalidated. This endpoint can also be accessed using the Basic authentication option used for "Authentication".

d. Token query

Provides the user with the ability to query how many tokens of the initial maximum of 20 allowed can still be requested (additional authentications). This endpoint can be accessed using both the Basic and Bearer authentication options.

13. Response Codes

The reponse codes below are correct at the time of inclusion into this document. The mobile networks may change or add new response codes from time to time, and if this is observed, please contact developers@smartcall.co.za and we will check these with the network concerned and updated this document.

Where a network name is not mentioned, it can be assumed that the code is for Smartcall Web Service.

1. Recharge responseCodes

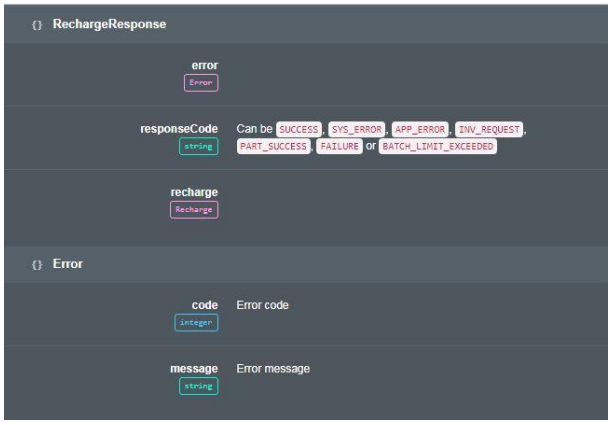

Figure 2: Recharge response codes

Response Code	Description
SUCCESS	Successful recharge submission to Smartcall. In the case of Pinless recharges, it does not mean the the recharge will be successful when sent to the network. Final recharge status can be queried using the "Transaction Query" API call.
SYS_ERROR	Typically a fault on the interface between Smartcall and the relevant mobile network
APP_ERROR	Typically a problem with the content of the recharge request (*error codes below*)
INV_REQUEST	This code is specific to Prevend requests and means there was a problem with the content of the prevend request message
PART_SUCCESS	This is used for Batch Recharges where not all the recharge requests contained in the batch are successful
FAILURE	This is used for Batch Recharges where ALL the recharges in the batch are unsuccessful
BATCH_LIMIT_EXCEEDED	The maximum number of recharges in the Batch Recharge Request has been exceeded (max 100)

Table 1: Recharge response codes

2. Recharge error codes

Code	Description
2	General System Error, recharged failed
3	Invalid owner Cell No provided
5	Invalid recharge network
6	Invalid recharge Cell No provided
8	A meter number is compulsory for an electricity recharge
9	Invalid Offering ID (product code)
10	Pinless Indicator Error: Smartload only distributes vouchers on the selected network
12	The Owner Cell No is no longer an active SMARTLOAD dealer
15	Insufficient funds in the SmartLoad wallet - Current balance: R…
16	A recharge with this meter no. has been received. Please wait for it to complete before retrying
17	The prevend has expired
18	Error (No Stock)
19	The quantity must be greater than 0
1001	Duplicate recharge (usually when customer recharge ID is re-used)
1002	Recharge still being processed
1003	Generic recharge failure
1004	Recharge response timed out, query to validate if recharge was submitted
1005	ClientReference does not exist
1006	Recharge Timeout, Please query recharge for status
1007	Recharge parameter validation failure
1008	Recharge does not exist
2001	Batch order does not exist

Table 2: Recharge ERROR codes

3. Cancel recharge response codes

Code	Message
0	SUCCESS
1	Invalid channel code
2	General System Error
3	The client reference is not linked to an Smartload reference number (invalid client reference number)
4	The Smartload reference number is not valid
5	A voucher recharge cannot be cancelled because a PIN has been issued
6	The recharge could not be cancelled because it has already been attempted at the network
100	Invalid request message. No transaction references supplied

Table 3: Cancel recharge response codes

4. Transaction query response codes

Code	Message
1	Requested
2	Pending
3	Successful
4	Failed
5	Cancelled

Table 4: Transaction Query Response Codes

5. Vodacom recharge response codes

Code	Description
00	Approved validation or Recharge completed successfully
03	Invalid Service Provider Id
10	Delay in processing the recharge
12	Invalid Recharge (e.g. Recharge attempt without activation, Business rule violation)
13	Invalid Recharge Denomination
15	Invalid Financial Institution Id
22	Vodacom related problem This response code indicates that the transaction was not successfully processed due to a problem on the back-end system.
26	Duplicate recharge attempted.
39	No credit account
42	Invalid MSISDN
61	Exceeds withdrawal limit
91	Vodacom related problem This response code indicates that the back-end system is either unavailable or did not respond in time.

Table 5: Vodacom recharge response codes

6. MTN recharge response codes

Code	Message	Description
0000	Request was Successful	Successful Recharge or MSISDN Validation
1800	MSISDN Validation Failed	MSISDN failed the applicable validation checks
1801	Violation of Law	Violation of law
1802	Maximum Rate Violation	Maximum transaction rate exceeded
1803	Invalid Processing Code	Processing code provided is not supported
1804	Unknown Merchant	Merchant does not exist

1805	Recharge Failed	Recharge failed
1806	Merchant Account Blocked	Merchant account is disabled
1807	Unknown Bundle	Bundle purchase not allowed/configured
1808	System Audit Trace Number Error	System Audit trace number do not conform to specification or was not found.
1809	Transaction Amount not allowed	The transaction amount exceeds the maximum allowed transaction amount or is less than the minimum allowed transaction amount
1810	Business Rule Violation	Based on MTN defined business rules this requested transaction cannot be performed on the particular subscriber's account
1811	Subscriber Barred	MSISDN is valid but the requested action is not allowed
1812	Subscriber not RICA'd	Subscriber not RICA'd
1813	Merchant limit exceeded	The merchant overall trading limit has been exceeded and an appropriate arrangement needs to be made with MTN
5814	Reconciliation Date Failure	Reconciliation data for the date specified is not available
9280	Request Format Error	Incorrect Request Format
9281	System Error	The request has failed due to an internal server error
9999	Generic Error	Unspecified Error Occurred

Table 6: MTN recharge response codes

7. Cell C recharge response codes

Code	Description
0	Successful Transaction
-3	Transaction already submitted (Duplicate)
-4	Trade partner not authorised for recharge type
1	Subscriber can't be recharged, please contact 140 (e.g MSISDN doesn't exist on our network)
2	Trade-partner authentication failed
3	Insufficient Funds in Trade partner account
5	Subscriber package doesn't allow a recharge (e.g. a Post Paid subscriber)
6	Transaction time-out
7	Subscriber chose airtime from an incompatible Service Provider (e.g. a VMSA subscriber trying to recharge with Cell C airtime)
8	Subscriber not allowed to recharge on CellC network
9	Unsuccessful Transaction
11	Unsuccessful Transaction

Table 7: Cell C recharge response codes

8. Telkom recharge response codes

Code	Message	Description
MPR-001	Invalid Merchant	The MerchantID specified in the request is unknown
MPR-002	Invalid Product	The ProductID specified is unknown/unsupported
MPR-003	Merchant is not allowed to recharge product	MerchantID/ProductID combination is unsupported.
MPR-004	Recharge Amount is not in the range allowed for the merchant.	Each merchant has a transaction minimum/maximum configured per product.
MPR-007	MSISDN Account Status is not valid	Call to IN platform succeeded, however the MSISDN status returned is not in the list allowed to be recharged
MPR-008	MSISDN's Account Type is not valid	Call to IN platform succeeded, however the account linked to the MSISDN is not prepaid or hybrid
MPR-011	No Pinless Recharge concept exists for recharge Ref Number	A valid Recharge Reference Number (MRxxx) must be provided – unsolicited recharge request
MPR-012	Recharge request denied. Merchant daily limit has been exceeded	Each client may have a limit configured against itself per product. This error is returned if the limit is exceeded.
MPR-013	Service pack and/or amount does not match	An incorrect Amount was provided in the Bundle Recharge transaction for the Service Pack code
MPR-020	Recharge request declined. Not allowed to recharge cents.	Review amount in request
MPR-021	Recharge request denied. Subscriber daily recharge limit has been exceeded.	A limit can be imposed by a merchant on every subscriber limit.
MPR-030	An error occurred validating the account against the Product Platform	An invalid MSISDN, PrepaidFone number or WorldCall Card number was provided or some account condition does not allow a recharge.
MPR-035	Previous recharge is pending - Please retry later	Previous recharge is pending - Please retry later
MPR-040	Recharge with provided Transaction Reference Number (TRN) is either unknown or is completed	This error will only be returned on a Cancellation request where the TRN provided in the cancellation transaction cannot be found on the system.
MPR-050	Recharge is in a state that does not allow for completion	User performs the recharge instruction on a recharge that is not in a Validated state.
MPR-070	Recharge Request Denied. Account credit limit has been exceeded	Each FLPP account is associated with a profile, which in turn has a maximum credit limit associated with it. The request is denied because the recharge would mean that the credit limit for the profile would be breached.
MPR-080	No recharge record found for TRN/SessionID	Recharge transaction could not be found on Telkom logs for the TRN or SessionID provided in the query transaction.
MPR-081	The recharge record found for TRN [TRN] / SessionID [SessionID] does not belong to MerchantID [MerchantID].'	A recharge record was found on Telkom logs for the TRN provided, but the recharge record does not belong to MerchantID.

MPR-100	Ping successful	The user performed a recharge with an amount of 0 (zero).

Table 8: Telkom recharge response codes

14. F.A.Q.

1. **Q: When I get a list of products, each product ID seems to be duplicated with only the "smsIndicator" field being different.**

   A: The reason for the "duplication", is that in the future, when an sms notification is requested to be sent, the discount may be lower. It should be noted though that the relevant mobile network will generally send a recharge notification.

2. **Q: When I send a prevend request I get a failure informing me that the product ID is invalid, but it is in the product list.**

   A: Prevend requests are only allowed for "pinless" products, and only available for Vodacom and MTN.

3. **Q: What is the difference between a "Prevend" and a "Recharge"?**

   A: A "recharge" is immediately logged into Smartcall's recharging system and submitted to the relevant network "asynchronously". Due to the queueing process and possible load issues (for example), the actual submission to the network might not my immediate. Due to the asynchronous process, a "transaction query" is requied to find out if the recharge transaction was ultimately successful. In a very, very small percentage of cases, there are failures returned by the networks for various reasons. A prevend takes a slightly different route though our system in that it is submitted directly (synchronously) to the relevant mobile network/electricity provider (only mobile networks **Vodacom** and **MTN** provide this feature) and we get back an immediate indication as to whether the transaction is expected to be successful or not. If the prevend is successful, a recharge can then be done and for mobile networks MUST use the same reference number as used for the prevend. It is not required for electricity.

4. **Q: Why do some recharges fail even though I get a "SUCCESSFUL" response to my recharge request?**

   A: A "successful" recharge response is only an indiction of a successful recharge submission to the Smartcall web service. Since it is only submitted to the relevant mobile network asynchronously after submission, the network can still fail the transaction for a variety of reasons.

5. **Q: When I send an "authorization request", I get a response with HTTP Code 429.**

   A: The cause of this issue is generally because you have performed multiple authorization requests (and received security tokens), without invalidating the tokens you are finished with. The web service allows for a maximum of 20 concurrent sessions per user account.

6. **Q: Where do I enter my Smartload PIN in the various requests?**

   A: With the new webservice interface, we have upgraded the security model to use a username and password instead of the Smartload account number (MSISDN) and 4-digit PIN. Your Smartload account is linked to your web service user account, and no further validation is required.

7. **Q: The balance on my Smartload QA account is zero, how can I top it up?**

A: Please send a topup request email to developers@smartcall.co.za and we will add funds to your QA account. Please remember to supply the Smartload account number that you would like topped-up.

8. **Q: I can't read the Smartcall certificate. What do I need to do?**

   A: In some cases you may need to have the thawte_SSL_CA_G2.cer certificate installed.

9. **Q: Is there a charge for using the Smartcall web service API?**

   A: There are **no** charges for using the API