SMS HTTP Specification

Customer Submission

API V1.3

Revision Sheet

Release No.	Date	Revision Description
V1.0	05/06/2018	Initial Release
V1.1	18/09/2018	API key added
V1.2	30/10/2018	Concatenated message length increase.
V1.3	10/9/19	Document update

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Introduction

This document describes in detail the HTTP API provided by the VoiceHub SMS Gateway for Short Message submission. This interface enables customers to send SMS message data in either GET or POST requests via to the HTTP protocol.

The SMS Platform also supports delivery reports (DLR) to convey the status of the submitted Short Message. If the customer requests a DLR, the report is requested from the terminating mobile network and either forwarded via HTTP to the customer's server (push mode) or collected by the customer's server (pull mode). If 'push' delivery for DLRs is required, the call back URL must be supplied and provisioned during the setup of the account.

Getting Started

In order to use the SMS Gateway, and the API, you must have an account on the platform (https://sms.voicehub.com.au). Please contact support@voicehub.com.au to have an account created.

Authentication

The gateway's HTTP API requires authentication for each available action. Each request requires an Authorization HTTP header, containing the value 'Bearer <YOUR_API_KEY>'. When provisioned, you will be supplied with an 'Access Key' and a 'Secret Key'. <YOUR_API_KEY> used in the Authorization header is a combination of these two keys using the special characters '$_$'.

For example, if your 'Access Key' is ABC and your 'Secret Key' is 123, your authorization header would be:

Authorization: Bearer ABC$_$123

If you do not provide an Authorization header with your API key, or if your API key does not match one registered for your account, an invalid response will be returned with an HTTP status code of 401.

VOICEHUB

Submit SMS

The SMS Gateway HTTP API supports the submission of different types of Short Messages, which are described in the following sections. Both GET and POST requests are supported with the URL required for submission of all types of SMS:

https://sms-api.voicehub.com.au/smsp-in

Note for GET requests, the parameters should be placed in the URL, in a format similar to: *https:// sms-api.voicehub.com.au/smsp-in?param1=value1&param2=value2*

For POST requests, the parameters should be placed in the body of the HTTP POST request, instead of the URL.

The complete list of the supported parameters can be found in Appendix A.

Send Simple SMS

In order to send a simple SMS (up to 160 characters) only the mandatory parameters *originator*, *mobile_number* and *text* are required. To request a delivery report, the optional parameter *request_delivery* must be set as true.

The request format for a simple SMS submission (with request for delivery report) is:

https://sms-api.voicehub.com.au/smsp-in

with parameters:

- originator: <SMS originator>
- mobile_number: <mobile_number>
- text: <SMS text>
- request_delivery: true

Example :

To send an SMS to 61419444555 containing the phrase "HELLO FRIEND" with originator MYCOMPANY. The GET HTTP request needed is:

https://sms-api.voicehub.com.au/smsp-in?mobile_number=61419444555&originator=MYCOMPANY&text=HELLO+FRIEND&request_delivery=true

Please note when using GET, parameters must be URL encoded.

Send Concatenated SMS

The SMS Gateway HTTP interface supports the submission of long messages of up to 480 characters, which will be sent as concatenated messages. In order to send a long concatenated message, the optional parameter *concatenated* must be set as true. The request format for a simple SMS submission of a long message, with request for a delivery report, is:

URL: https://sms-api.voicehub.com.au/smsp-in

with parameters:
- originator: <SMS originator>
- mobile_number: <mobile_number>
- text: <Long SMS text>
- concatenated: true
- request_delivery: true

Send Bulk SMS

As noted in the previous examples, a single SMS can be sent via a single HTTP request. The SMS Gateway also facilitates the sending of multiple SMS per HTTP request. The only difference between single and multiple SMS delivery per HTTP request is the *mobile_number* parameter. For single SMS delivery, this is a single number. For multiple SMS delivery, this will be a comma-separated list of mobile numbers.

The request format for a bulk simple SMS submission (with request for delivery report) is:

https://sms-api.voicehub.com.au/smsp-in

with parameters:

- originator: value1
- text: value2
- request_delivery: true
- mobile_number: number1,number2,...,number100

Example :

To send two SMS, to 61419444555 & 61419444666
 With Content: HELLO FRIEND
 With originator: MYCOMPANY

The GET HTTP request needed is:

https://sms-api.voicehub.com.au/smsp-in?originator=MYCOMPANY&text=HELLO+FRIEND&request_delivery=true&mobile_number=61419444555, 61419444666

Please ensure your balance is insufficient to cover the bulk SMS requirement. If an insufficient balance, a "You have not enough balance" error code will be returned. It is also a good practice to put the *mobile_number* parameter at the end of the URL.

Personalized SMS

The SMS Gateway HTTP interface supports the single or bulk submission of simple or concatenated SMS with personalized content for each recipient.

To facilitate this feature, the message body will contain special keywords, in the form ${keywords}, which are replaced with the recipient specific values during submission. The different values for each keyword are provided by using parameters in the form *d_keyword*=value1,value2,...,valuen

The following table presents the list of available personalized keywords and their corresponding value parameters:

Keyword	Keyword Values	Description
${name}	d_name=v1,...,vn	The name of the recipient
${vname}	d_vname=v1,...,vn	The name of the recipient (vocative)
${surname}	d_surname=v1,...,vn	The surname of the recipient
${vsurname}	d_vsurname=v1,...,vn	The surname of the recipient (vocative)
${mobile}	d_mobile=v1,...,vn	The mobile of the recipient
${birthday}	d_birthday=v1,...,vn	The birthday of the recipient
${nameday}	d_nameday=v1,...,vn	The name of the recipient
${custom0} ... ${custom4}	d_custom0=v1,...,vn ... d_custom4=v1,...,vn	Five general purposed custom fields

Table 1: Special personalized keywords and their value parameters

The request format for a bulk personalized SMS submission (with request for delivery report) is:

https://sms-api.voicehub.com.au/smsp-in

with parameters:

- originator: value1
- text: Text with ${keyword}
- request_delivery: true
- d_keyword: value1,value2,...,valuen
- mobile_number: number1,number2,...,numbern

Example :

To send two SMS:
To: George (16944444444) and John (446944444445)
Containing: the phrase HELLO "and their name"
Originator: MYCOMPANY.

The GET HTTP request needed is:

https://sms-api.voicehub.com.au/smsp-in?originator=MYCOMPANY&text=HELLO+${name}&request_delivery=true
&d_name=George,John&mobile_number=16944444444,446944444445

George will receive the SMS "HELLO George" & John will receive the SMS "HELLO John"

Please note that in personalized SMS submissions the maximum permitted characters (up to 160 or up to 459) and the total cost are calculated after the keywords replacement.

Processing the Response

Upon the receipt of a Short Message submission request, the SMS Gateway parses the submitted parameters, performs the required checks, and sends back a response. More detailed information on the response provided is provided in the following sections.

Single SMS Response

The format of SMS Platform response for a single Short Message submission is the following:

Acceptance status|message id|balance

The *acceptance status* reports if the submission has been accepted or rejected from the SMS Gateway. The acceptance status can have the following possible values:

Value	Description
1	The message is accepted
0	The message is rejected
-1	The username is empty
-2	The password is empty
-3	The user does not exist.
-4	The user has been deactivated
-5	The destination mobile number is wrong
-6	The country code is wrong

-7	The message originator has wrong format
-8	More than 100 destination numbers (for bulk submissions with GET HTTP requests)
-9	The text parameter is missing
-10	The value of the keyword is missing
-11	The text parameter contains invalid keywords
-12	The d_nameday or the d_birthday parameter has wrong format
-13	The d_mobile parameter has wrong format
-15	The text contains invalid characters
-16	Some of the submitted data are wrong
-17	Internal server error
-18	The text is too long

Table 2: SMS Platform HTTP interface error codes

The *message id* is a unique identifier for the submitted SMS and the *balance* is the number of credits the account holds. Note that for post-paid accounts, the balance will be an arbitrary amount.

Example :

Supposing a customer has submitted a single message, the SMS Platform has accepted that message, has assigned to it the id 14 and the balance of the customer is 25. The response of the SMS Platform upon the submission will be:

1|14|25

Supposing the SMS Platform has rejected the message because of a wrong mobile number format (for that reason has not assigned any id to the message).
The response of the SMS Platform upon the submission will be:

-2|0|25

Bulk SMS Response

The format of SMS Gateway response for multiple Short Message submission is the following:

acceptance status 1|message id 1|acceptance status 2|message id 2

The *acceptance status* reports if the submission has been accepted or rejected from the SMS Platform (see Table 3) while the *message id* is a unique identifier for the submitted SMS.

Example :

Supposing a customer has submitted two messages (as a bulk submission), the SMS Platform has accepted the first message and has assigned to it the id 14.
Furthermore, the SMS Platform has rejected the second message because of an incorrect mobile number format (for that reason has not assigned any id to the message).

The response of the SMS Platform upon the bulk submission will be:

1|14|-2|0

Delivery Reports (DLR)

The SMS Platform HTTP interface supports DLR status information in two different ways (pull and push mode). Both modes require the parameter *request_delivery*= true to be set during the HTTP request.

Delivery Reports (Pull Mode)

If the customer has not provided a callback URL for DLRs, and *delivery_push* is not set to 'true', then the parameter *get_status*, or *get_status2*, must be used to 'pull' the delivery report information for a submitted SMS. Further details on these two parameters are provided below.

Simple Delivery Reports

Using the parameter *get_status* one can retrieve the list of all SMS sent and their status, if their status has been changed since the last time *get_status* was called.

The status is returned in pairs **message_id | message_status**

message_id: the message id returned on submission of the SMS
message_status: the current message status (s sent, f failed, d delivered)

Example :

Suppose that the submission of an SMS has returned the message id 12100. The following request will display the status of this SMS if it has been changed. It will also return all the messages that have altered status. The request is:

https://sms-api.voicehub.com.au/smsp-in?get_status=true

The response will be:

12100|d|12102|f

This means that the SMS with id 12100 is delivered and the one with id 12102 is failed.

Advanced Delivery Reports

Using the parameter *get_status2* one can retrieve the sub status (more specific than status) of a specific sent message.

The status and sub status is returned in pairs **message_id | message_status | message_sub_status:**

message_id: the message id returned on submission of the SMS
message_status: the current message status (s sent, f failed, d delivered)
message_sub_status: the current message sub status (d delivered, e expired, x deleted, u undeliverable, a accepted, r rejected, n unknown) (see Table 4)

Example :

Suppose that the submission of an SMS has returned the message id 12100. The following request will display the status of this SMS if it has been changed. It will also return all the messages that have altered status. The request is:

https://sms-api.voicehub.com.au/smsp-in?get_status2=true

The response will be:

12100|d|d|12102|f|e

This means that the SMS with id 12100 is delivered and the one with id 12102 is failed because of the validity period expiration.

Delivery Reports and SMS Cost

Both simple and advanced delivery reports can be combined with the *get_cost* parameter. If the user has set the *get_cost* parameter equal to "true" he will receive a response in the following format:

---

message_id|message_status|message_cost
(simple delivery reports response)

message_id|message_status|message_sub_status|message_cost
(advanced delivery reports response)

message_id: the message id returned on submission of the SMS
message_status: the current message status (s sent, f failed, d delivered)
message_sub_status: the current message sub status (d delivered, e expired, x deleted, u undeliverable, a accepted, r rejected, n unknown) (see Table 4)
message_cost: the credits that the SMS cost

Example :

Suppose that the submission of an SMS has returned the message id 12100. The following request will display the status of this SMS if it has been changed. It will also return all the messages that have altered status. The request is:

https://sms-api.voicehub.com.au/smsp-in?get_status2=true &get_cost=true

The response will be:

12100|d|d|2|12102|f|e|1

This means that the SMS with id 12100 is delivered and cost 2 credits and the one with id 12102 is failed because of the validity period expiration and cost 1 credit.

Delivery Reports 'Push' Mode

Upon the receipt of a delivery report, the SMS Gateway will forward the delivery report to the specified customer's server DLR callback URL. A HTTP GET request of the following format will be generated and forwarded to the customer's pre-defined DLR callback URL:

customer_url?msgid=msg_id&status=msg_status&sstatus=msg_sstatus &smscost=msg_smscost

where customer_url is defined in the user's settings and targets the script that implements the customer's logic for delivery reports handling

An overview of the parameters contained in a delivery report HTTP Request is shown in the following table. Please note that all parameters are mandatory and will always be included in the HTTP Request.

Parameter	Type	Possible Values/Comment
msgid	string	The message id returned on submission of the SMS
status	string	The current message status. The possible values are: • **s – sent:** the message has been submitted to the provider • **f – failed:** the message failed to be delivered the message has been delivered to the final destination • **d – delivered:** the message has been delivered to the final destination
sstatus	string	The current message sub status. The possible values are: • **s – sent::** the message has been submitted to the provider • **d - delivered:** the message has been delivered to the final destination • **f – failed:** the message was marked as failed by the provider • **e - expired:** the message was stored by the provider until the expiration date of the message was passed

		• **x - deleted:** the message has been deleted manually by the provider. This is not supposed to happen, unless the operator detects a large amount of spam messages • **u – undeliverable:** the message could not be delivered because it does not exist anymore, or because the operator could not find an appropriate route to this user • **a – accepted:** the message has been accepted to be delivered by the provider • **r – rejected:** the message has been rejected because of syntactic or semantic problems with the message parameters. • **o – billing error:** the message failed to get billed by the platform • **m – no price set::** the message failed because there is not any price set in the user's pricelist • **y – billing failure:** the SMS failed. Please contact your administrator with error code #BSPFTB • **j – not enough balance:** The user does not have enough balance. • **l – curfew period applied:** The message marked to be sent after the defined curfew period • **z – spam:** The message marked as spam • **i – invalid amount::** the amount to be charged is not valid • **k – insufficient balance:** The subscriber has insufficient balance • **n – unknown:** an unknown error has occurred
smscost	number	The credits that the SMS cost
currency_code	string	The currency of the smscost
retry	number	The number of the current push retry
mcc (Optional)	number	The mobile country code of the destination number. This information will be pushed only if it is available.
mnc (Optional)	number	The mobile network code of the destination number. This information will be pushed only if it is available.
external_id (Optional)	number	The id the sms provider assigned to the message. This information will be pushed only if it is available.
contact_id (Optional)	number	The id of the contact the message was sent to. This information will be pushed only if it is available.
campaign_id (Optional)	number	The id of the campaign the message belongs to. This information will be pushed only if it is available.

reference (Optional)	number	The id of the group message dispatch the message was part of. This information will be pushed only if it is available.

Table 3: Delivery reports HTTP request parameters

Example :

Suppose the customer has defined the following DLR callback URL:

http:/customer_server/reports.php

and the SMS Platform has received a delivery report for the message with id:12, which reports that the message failed to be delivered because the user has his handset inactivated and it's cost was 1 credit. In the above scenario the SMS Platform will send the following HTTP request:

http://customer_server/reports.php?msgid=12&status=f&sstatus=e&smscost=1

The customer's script must reply by using a string, which begins with "OK" or "NOK". Otherwise, the server will continue to send the message assuming that the initial attempt was unsuccessful.

Balance Information

SMS Gateway enables you to poll the platform to receive information about your current balance using the *get_balance command*. Upon the receipt of a *get_balance* command the SMS Gateway will return the number of credits available on this particular account. In order to do this a URL in the following format must be generated:

Example:

https:// sms-api.voicehub.com.au/smsp-in?get_balance=true

The response will be:

12

which means that you have 12 credits remaining in your account.

Appendix A: List Of Parameters And Commands

Table below contains the list of available parameters:

Parameter	Description	Type	Valid Values/ Limitations
originator	Message sender	String	It must be either numeric with a length range between 10 and 16 digits or alphanumeric up to 11 latin chars (including the special chars !:;+.-) If numeric it must be prefixed with a +.
mobile_number	Message destination	String	Must be a valid mobile number
text	Message text	String	Max 160 chars (or 459 chars for concatenated messages)
request_delivery	Request delivery reports indicator	Boolean	The boolean values true/false
delivery_push	Push/Pull mode delivery reports indicator	Boolean	The boolean values true for push mode and false for pull mode
concatenated	Long message text indicator	Boolean	The boolean values true for text up to 459 chars and false for text up to 160 chars
flash	Flash message indicator	Boolean	The boolean values true for flash text message up to 160 chars and false for simple text message
get_cost	Request sms cost with delivery report	Boolean	The boolean values true and false
d_name	Values for keyword ${name}	String	Comma separated list of strings
d_vname	Values for keyword ${vname}	String	Comma separated list of strings
d_surname	Values for keyword ${surname}	String	Comma separated list of strings
d_vsurname	Values for keyword ${vsurname}	String	Comma separated list of strings
d_mobile	Values for keyword ${mobile}	String	Comma separated list of numeric strings
d_nameday	Values for keyword ${nameday}	String	Comma separated list of strings. Only digits and the special characters -/ are allowed.
d_birthday	Values for keyword ${birthday}	String	Comma separated list of strings. Only digits and the special characters -/ are allowed.
d_custom0 ... d_custom4	Values for keywords ${custom0} … ${custom4}	String	Comma separated list of strings.

Command	Description	Type	Valid Values/ Limitations
get_balance	Get balance information	-	Just include the parameter in your request without any value.
get_status	Retrieve delivery reports	-	Only for use with pull delivery reports mode. Just include the parameter in your request without any value.
get_status2	Retrieve detailed delivery reports	-	Only for use with pull delivery reports mode. Just include the parameter in your request without any value.

Table 4: SMS Platform HTTP API request parameters and commands

Parameter originator (Mandatory)

The originator of the message. Should be either numeric with a length range between 10 and 16 digits or alphanumeric up to 11 latin chars (including the special chars !:;+.-). Note that if numeric, the originator must be presented with a leading +.

Examples :

originator=MyCompany

originator=My-Company

originator=+61488777654

Parameter mobile_number (Mandatory)

The *mobile_number* parameter is used to specify the destination(s) GSM number of the Short Message. The destination number must not be longer than 20 characters and it must be written in international format (**without the leading +**). In case of bulk Short Message submissions the value of the *mobile_number* must be a comma-separated list of mobile numbers.

Examples:

mobile_number=61419444555

(single message submission)

mobile_number=61419444555, 61419444666, 61419444777

(bulk message submission)

Parameter text (Mandatory)

The Short Message text. It must not exceed the length of 160 characters, in case of a non concatenated message, or 459 characters, in case of a concatenated message. In the second case the submitted message appears as one long Short Message at the recipient's handset. The SMS Platform expects the value of text parameter in UTF-8 encoding and, if using GET it's on URL and must be URL-escaped.

Parameter request_delivery (Optional)

If this parameter is used with 'true' value, then delivery reports are requested for the corresponding Short Message. The default value of the parameter 'request_delivery' is 'false'.

Parameter delivery_push (Optional)

The 'delivery_push' parameter is used to specify the way in which the requested delivery reports will be received by the customer's server. If this parameter is 'true' (push mode), the SMS Platform will forward every received report to the customer's server. If it's value is 'false' (pull mode), the customer receives the new delivery reports by using the *get_status* or *get_status2* parameter.

Parameter concatenated (Optional)

If this parameter is set to 'true', the message text length can be up to 459 chars, otherwise the message text can be up to 160 chars. If the text length exceeds the 160 (or 459) chars and 'concatenated' is not set to 'true', only the first 160 will be sent. By default a Short Message is considered as non concatenated, if 'concatenated' is not specified.

Parameter flash (Optional)

If this parameter is used with "true" value, the message will be send as a flash message. In case of a flash message the message text has to be up to 160 chars (the "concatenated" parameter is ignored). If the text length exceeds the 160 chars, only the first 160 will be sent. By default a Short Message is considered as non flash, if "flash" parameter is not specified. Note that Flash SMS may not be supported by some providers.

Parameter utf (Optional)

If this parameter is set to 'true', the message will be sent as a Unicode message. In case of a Unicode message each message has to be up to 70 chars, however you can combine the "utf" parameter with the "concatenated" parameter in order to send long Unicode messages. By default a Short Message is considered as non Unicode, if the 'utf' parameter is not specified. Note that unicode encoding may be required if you intend to send characters which fall outside the standard GSM alphabet ie. Emojis.

Parameter get_cost (Optional)

This parameter is used in combination with the commands get_status or get_status2. When this parameter is included in the HTTP request with a "true" value , the SMS Platform returns a list of the delivery reports of the messages the user has sent including the credits that every sms cost. *Detailed information about the delivery reports is provided in the section [Delivery Reports (DLR)].*

Parameter d_name (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${name}. The value of this parameter is a comma separated list of strings that will replace the ${name} keyword during the submission (the first string will replace the ${name} keyword for the first destination e.t.c).

Parameter d_vname (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${vname}. The value of this parameter is a comma separated list of strings that will replace the ${vname} keyword during the submission (the first string will replace the ${vname} keyword for the first destination e.t.c).

Parameter d_surname (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${surname}. The value of this parameter is a comma separated list of strings that will replace the ${surname} keyword during the submission (the first string will replace the ${surname} keyword for the first destination e.t.c).

Parameter d_vsurname (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${vsurname}. The value of this parameter is a comma separated list of strings that will replace the ${vsurname} keyword during the submission (the first string will replace the ${vsurname} keyword for the first destination e.t.c).

Parameter d_mobile (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${mobile}. The value of this parameter is a comma separated list of "numeric" strings that will replace the ${mobile} keyword during the submission (the first string will replace the ${mobile} keyword for the first destination e.t.c).

Parameter d_nameday (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${nameday}. The value of this parameter is a comma separated list of strings (that contain only digits and the characters -/), that will replace the ${nameday} keyword during the submission (the first string will replace the ${nameday} keyword for the first destination e.t.c).

Parameter d_birthday (Optional)

This parameter is used for personalized Short Message submissions and only when the message text contains the keyword ${birthday}. The value of this parameter is a comma separated list of strings (that contain only digits and the characters -/), that will replace the ${birthday} keyword during the submission (the first string will replace the ${birthday} keyword for the first destination e.t.c).

Parameters d_custom* (Optional)

This parameters are used for personalized Short Message submissions and only when the message text contains the keywords ${custom0} - ${custom4}. The values of these parameters is comma separated lists of strings that will replace the ${custom0} - ${custom4} keywords during the submission (the first string in d_custom0 will replace the ${cutom0} keyword for the first destination e.t.c).

Command get_balance (Optional)

If this parameter is included in the request, the SMS Platform returns the current balance of the user and then stops the processing of that request. *Detailed information about the user balance is provided in the section [User Account Balance].*

Example:

https://sms-api.voicehub.com.au/smsp-in?get_balance=true

Command get_status (Optional)

This parameter is useful only when the *request_delivery*=true and *delivery_push*=false. When this parameter is included in the HTTP request, the SMS Platform returns a list of the delivery reports of the messages the user has sent. *Detailed information about the delivery reports is provided in the section [Delivery Reports (DLR)].*

Example:

https://sms-api.voicehub.com.au/smsp-in?get_status=true

Command get_status2 (Optional)

This parameter is useful only when the *request_delivery*=true and *delivery_push*=false. When this parameter is included in the request url, the SMS Platform returns a list with <u>detailed</u> delivery reports of the messages the user has sent. *Detailed information about the delivery reports is provided in the section [Delivery Reports (DLR)].*

Example:

https://sms-api.voicehub.com.au/smsp-in?get_status2=true