SMS Hub SMPP API v1.1

https://sms.voicehub.com.au

VoiceHub
2018

Revision Sheet

Release No.	Date	Revision Description
V1.0	05/06/2018	Initial Release
V1.1	18/09/18	Updated supplier release

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Introduction

The Short Message Peer to Peer (SMPP) protocol is an open industry standard messaging protocol designed to simplify integration of data applications with wireless mobile networks.

This technical document is intended for developers who wish to use the VoiceHub SMS Platform SMPP interface for sending messages. It describes the various programming methods and commands used by developers when using this interface.

The SMPP interface provides a direct connection to the VoiceHub gateway (also known as a bind) to enable you to send a high-volume of SMS messages in a short period of time. With an SMPP connection, you're continuously connected to our gateway, and the standard protocol requires no programming if you have SMPP software installed.

Step 1: Getting Started

In order to use the VoiceHub SMS Platform and SMPP API, you must have an account on the platform (https://sms.voicehub.com.au). This is the only way to have a connection between your application and the SMS platform.

Step 1: Sign Up for a SMS Platform account

If you do not already have a VoiceHub SMS Platform account, you need to Sign Up for one at the https://sms.voicehub.com.au.

Step 2: Supported PDUs

Currently, the VoiceHub SMS Platform SMPP interface is **SMPP v3.4** compliant. The following table contains all the Protocol Description Units (PDUs) supported by the interface:

Client To Server	Server to Client
bind_transmitter	bind_transmitter_resp
bind_receiver	bind_receiver_resp
bind_transceiver	bind_transceiver_resp
submit_sm	submit_sm_resp
enquire_link	enquire_link_resp
deliver_sm_resp	deliver_sm - supported types: • SMSC Delivery Receipt (DLR) • Normal Message (MO)

Table 1: SMS Platform SMPP interface supported PDUs

For more information about the Protocol Description Units (PDUs) see the SMPP v3.4 specifications.

Step 3: Connect & Authenticate

The following sections contain all the information you need to connect and authenticate to the VoiceHub SMPP Server.

Host & Port Information

The SMPP server that serves the requests that sent to the SMPP interface is located at the following host and port.

Hostname	sms-smpp.voicehub.com.au
TRX Port	27777 (without TLS); 27778 (with TLS)

Table 2: SMPP interface host and port information

System ID & Password

The **system_id** and **password** are the same as your SMS Platform account **username** and **password** . Furthermore, the system_type must always be set to "SMPP".

Parameter Name	Description	Restrictions
system_id	The SMPP username	This is the access key part of your API key. A maximum of 15 characters, see SMPP specifications for more information
password	The SMPP password	This is the secret key part of your API key. A maximum of 8 characters, see SMPP specifications for more information
system_type	Your product type	Always must be set to "SMPP"

Table 3: SMPP interface authentication fields

Step 4: Submitting Messages

Messages must be submitted with the submit_sm command, using the short_message field. Furthermore, the message length may not exceed the limit for the network that the message is being sent to (for example 160 bytes on GSM networks).

A positive response to a submission will contain an error code of zero and a non-null message reference. A negative response will most likely contain an error code and a null message reference. A list of error codes is shown in the Appendix A: Error codes.

The SMS Platform SMPP interface supports two character-encoding regimes.

- SMSC Default (0x00)

- GSM 03.38 (0x01)

- Unicode encoding (0x08)

- Latin 1 (0x03)

To use the default character-encoding messages should be sent with a data_coding of 0. The default character-encoding is configured to be the GSM 03.38 character set, when the client account is provisioned.

Step 5: Delivery Notifications / Reports

The SMS Platform SMPP interface will return a delivery report to the client application when the registered_delivery field is set to anything other than zero or null. Full delivery reporting will be active for any other value in this field. The delivery report format is the one suggested in the SMPP v3.4 specification:

The SMS Platform SMPP interface supports the following values for the **status** field:

id:IIIIIIIII sub:SSS dlvrd:DDD submit date:YYMMDDhhmm done date:YYMMDDhhmm stat:DDDDDDD err:E Text: . . .

Status	Description
DELIVRD	Delivered to handset
EXPIRED	Message validity period has expired
DELETED	The message was deleted
UNDELIV	Message is undeliverable
ACCEPTD	We have submitted your message to a deliverer
UNKNOWN	We cannot determine the status of your message, but it will no further retries will be attempted
REJECTD	The message was rejected. The provider could have blocked phone numbers in this range
BUFFRED	Deliverer could not deliver, but has spooled for retry
FAILED	Deliverer could not deliver, and will not retry .

Table 4: SMS Platform SMPP interface status codes

Moreover, the **err** field gives you a more detailed description about the cause of a message failure. The err field will contain:
- if the generic code error mapping is disabled, an sms provider specific error code or
- if the generic code error mapping is enabled, one of the following generic codes the platform supports

Err	Label	Description
0	SUCCESS	The message has been delivered
1	UNKNOWN_SUBSCR	Unknown message recipient
9	SYSTEM_FAIL	System failure during message dispatch

10	DATA_MISS	Missing message data
11	DATA_UNEXP	Unexpected message data
13	TOUT_SENDING	The timeout period expired during message dispatch
16	RCVR_BLACKLISTED	Blacklisted message recipient
18	UNKNOWN_ERROR	Unknown error
19	SMS_REJECT	The message has been rejected by the sms provider
20	SMS_DISCARD	The message has been discarded by the sms provider
21	SMS_EXPIRED	The message has expired
22	SMS_FAILED	The message has failed
24	TEXT_PROHIBIT	The message contained prohibited text
25	BILLING_ERR	The message failed due to a billing error
26	ROUTERR	The message cannot be routed
28	SC_CONGESTION	The SMS Center is congested
29	SC_UNKNOWN	The SMS Center returned unknown error
34	AUTH_ERROR	Authentication error
39	NO_PRICE_SET	There is not price set for the sms

Table 5: Generic error codes in Delivery Status Reports

Appendix A: Error Codes

The following list of error messages are generated by the SMS Platform SMPP interface during the validation phase before we accept the message. These error messages are sent back to your application.

Error Code	Hex Value	Description	Retry Message
ESME_ROK	0x000	No Error	No
ESME_RINVMSGLEN	0x001	Message too long	No
ESME_RINVCMDLEN	0x002	Command length is invalid	No
ESME_RINVCMDID	0x003	Command ID is invalid or not supported	No
ESME_RINVSESST	0x448	Incorrect session status for given command	No
ESME_RALYLOGIN	0x005	Already logged-in	No
ESME_RINVPRTFLG	0x006	Invalid Priority	No
ESME_RINVDLVFLG	0x007	Invalid delivery flag	No
ESME_RSYSERR	0x008	System error	Yes
ESME_RINVSRCADR	0x00A	Invalid source address	No
ESME_RINVDSTADR	0x00B	Invalid destination address	No
ESME_RINVMSGID	0x00C	Message ID is invalid	No
ESME_RLOGINFAIL	0x00D	Login failed	Yes
ESME_RINVPASWD	0x00E	Invalid password	No
ESME_RINVSYSID	0x00F	Invalid system id	No
ESME_RCANCELFAIL	0x011	Canceling message failed	Yes
ESME_RREPLACEFAIL	0x013	Message replacement failed	Yes
ESME_RMSSQFUL	0x014	Message queue full	Yes

ESME_RINVSERTYP	0x015	Invalid service type	No
ESME_RINVNUMDESTS	0x033	Invalid number of destinations	No
ESME_RSUBMITFAIL	0x045	Submitting message failed	Yes
ESME_RINVNUMMSGS	0x055	Invalid number of messages	No
ESME_RTHROTTLED	0x058	Throttling error	Yes
RINVSCHED	0x061	Invalid scheduled delivery time	No
RINVEXPIRY	0x062	Invalid Validity Period value	No
RX_T_APPN	0x064	ESME Receiver temporary error	Yes
RX_P_APPN	0x065	ESME Receiver permanent error	No
RX_R_APPN	0x066	ESME Receiver reject message error	No
RQUERYFAIL	0x067	Message query request failed	Yes
RTLVNOTALLWD	0x0C1	Optional parameter not allowed	No
RINVTLVLEN	0x0C2	Invalid parameter length	No
RMISSINGTLV	0x0C3	Expected Optional parameter missing	No
RINVTLVVAL	0x0C4	Invalid optional parameter value	No
RDELIVERYFAILURE	0x0FE	Transaction delivery failure	Yes
RUNKNOWNERR	0x0FF	Unknown error	No

Vendor Specific Error Codes

RINVBALANCE	0x401	Insufficient credits to send message	No
ROUTERR	0x402	Number unroutable	No
ACCFROZ	0x403	Account Frozen	No
DATAERR	0x404	Bad Data	No
NUMBLACKLIST	0x405	Number blacklisted in system	No

CLIENTBLACKLIST	0x406	Client blacklisted in system	No
TEMPSYSERR	0x407	Temporary System failure	Yes
NUMNOROUTABLE	0x408	Number unroutable	No
NUMTEMPNOROUTABLE	0x409	Number temporarily unroutable	Yes
RPROHIBITED	0x40A	ESME prohibited from using specified operation	No
RINVDCS	0x40B	Invalid data coding scheme	No
NOMSGBODY	0x40C	Message text is null	No
MAXCONSPERIP	0x40D	Maximum Connections per IP	No
MAXCONSPERUSER	0x40E	Maximum Connections per User	No
ESME_NUMBLOCKED	0x410	Number is blocked	No
ESME_BILLINGERR	0x411	Billing Reference Error	No
ESME_TEXTPROHIBIT	0x412	The text content of this message is prohibited on this product	No
ESME_HLRERR	0x413	The number portability operator lookup failed	Yes
ESME_INVCONTENTTYP E	0x414	Invalid ContentType	No
ESME_NOORIGINATOR	0x415	Originator missing from the message	No
ESME_USERDEACTIVAT ED	0x416	End user deactivated	No
ESME_USERSUSPENTED	0x417	End user suspended	No

Table 5: SMS Platform SMPP interface error codes