MobiWeb

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SMPP API Manual

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Sales Support: sales@solutions4mobiles.com
Technical Support: support@solutions4mobiles.com
SKYPE: mobiweb.support

Support: +44 203 318 3618 (Main Switchboard)
Support: +1 702 608 8531

TABLE OF CONTENTS

INTRODUCTION 2
SMS SUBMISSION WITH SMPP 2
CONTROL PANEL 4
DELIVERY REPORTS (DLR) 4
CREDIT BALANCE 4
VIEW DETAILED PRICING & COVERAGE 5
PRICING API EXAMPLE 6
VIEW STATISTICS 6
CONCATENATED TEXT MESSAGES 7
ERROR CODES 9

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INTRODUCTION

This document describes MobiWeb's SMPP API platform. The **Short Message Peer-to-Peer (SMPP)** protocol is a telecommunications industry protocol for exchanging SMS messages between SMS peer entities. It is often used to allow third parties (e.g. sms aggregators, news organizations, large enterprises) to submit messages in large bulks. The protocol is based on pairs of request/response of Protocol Data Units (PDUs) exchanged. PDUs are binary encoded.

Companies using SMPP as their connection method should have a strong technical knowledge and use special SMPP client applications to connect.

SMS SUBMISSION WITH SMPP

Below you can find the necessary parameters you must set in your SMPP client application before connecting successfully to our platform.

Note: Connection details are provided to users by their respective Account Managers, by email.

Parameter	Example / Explanation
host	e.g. 195.108.22.102 (as given by your Account Manager)
	The host of your account.
username	e.g. userXXXX (as given by your Account Manager)
	The username of your account.
password	e.g. passXXXX (as given by your Account Manager)
	The password of your account.
port	2780
	The port that you will connect to.
system_id	e.g. 2 (leave empty "" unless given by your Account Manager)
	Leave empty "" unless given by your Account Manager
Source Address	
TON (Type On Number)	1 (International)
0	Unknown
1	International
2	National
3	Network Specific
4	Subscriber Number
5	Alphanumeric
6	Abbreviated
NPI (Number Plan Identification)	1 (MSISDN)

0	Unknown
1	MSISDN
2	Data numbering plan
3	Telex numbering plan
6	Land Mobile
8	National numbering plan
9	Private numbering plan
10	ERMES numbering plan
13	Internet (IP)
18	WAP
Inquiry Link Interval	150
Destination Address	
TON (Type On Number)	1 (International)
NPI (Number Plan Identification)	1 (MSISDN)

Table 1 - SMPP Connection Parameters

Recipient: Recipient of the SMS should in its full international format. This excludes the leading '+' or the 00 notation (e.g. for Germany 49xxxxxxxxxx), Messages not complying with the above might be rejected.

Originator: When you set the originator (it is the sender displayed in the recipient's mobile device upon arrival of the SMS) of your messages the following restrictions apply:

- If you use letters and numbers (alphanumeric) do not exceed 11 characters. Use only characters from A to z and numbers 0-9. (e.g. SMSSENDER10)
- Do not use spaces. (e.g. Sender12345)
- If you use numbers (numeric) do not exceed 14 digits. (e.g. 34523445322319)
- You cannot use special characters like (!#@$%^*~?:";). Such characters might be sent by specific routes but we do not guarantee message delivery if you set any of them in the originator. For more information contact your Account Manager.

Max Connection Instances (binds): Default 2 connections per SMPP account. For more connections, please contact your Account Manager.

Throughput/Throttling: The maximum number of SMS that you can send to our system per second. This is set to 50 SMS/sec as default. This can be adjusted by your Account Manager, based on your SMS monthly traffic.
Note: Throughput is restricted by the capacity of the destination network operator.

SMPP PDUs
bind_transmitter / bind_transmitter_resp
bind_receiver / bind_receiver_resp
bind_transceiver / bind_transceiver_resp
enquire_link / enquire_link_resp
unbind / unbind_resp
submit_sm / submit_sm_resp
submit_sm_multi / submit_sm_multi_resp
deliver_sm / deliver_sm_resp
generic_nack

Table 2 - Supported PDUs

CONTROL PANEL

You can access your account control panel through the web page http://HOST. (e.g. http://123.45.1.34)
Note: HOST, username and password are the same in your SMPP connection details and are provided to users by your Account Manager, by email.

DELIVERY REPORTS (DLR)

To get a Delivery Report (DLR) you must bind as transceiver or bind another connection instance as receiver in your SMS SMPP Client application.

We will not provide Delivery reports if your do not request in your SMS SMPP client application.

CREDIT BALANCE

A HTTP API request is available for users who wish to retrieve the remaining credits of their accounts. An example of HTTP GET or HTTP POST request is:

http://HOST/bulksms/smpp_balance.go?username=userXXXX&password=passXXXX

Note: HOST, username and password are the same in your SMPP connection details and are provided to users by your Account Manager, by email. Refer to Table 5 for Error Code explanations.

Parameter	Example / Explanation
Username	e.g. userXXXX
	The username of your account.

Password	e.g. passXXXX
	The password of your account

Table 3 – Credit Balance Parameters

An HTTP API Credit Balance request returns the number of available balance in EURO of the user's account.

(e.g. 5380.35 €)

VIEW DETAILED PRICING & COVERAGE

An HTTP API request is available for users who wish to retrieve the pricing and the covered networks for their account. An example of HTTP GET request follows:
http://HOST/bulksms/getpricing.go?username=userXXXX&password=passXXXX
or
http://HOST/bulksms/getpricing.go?username=userXXXX&password=passXXXX&format=html

Refer to Table 5 for Error Code explanations.

Parameter	Example / Explanation
username	e.g. userXXXX
	The username of your account.
password	e.g. passXXXX
	The password of your account
format (optional)	e.g. format=html (Default csv)
	Set this parameter to 'html' for requesting to get a human readable format of your pricing. Set to 'csv' to get a .csv file format mostly to process it with your own script.
type (optional)	e.g. type=1mncperline (Default '')
	Set this parameter to control the way operators with multiple MNC will be displayed. type=1mnc - Display only main MNC of operator. type=1mncperline - Display each MNC of operator in a new line. type='' – Display all MNC of operator in one line separated by whitespace.
e212 (optional)	e.g. e212=true (Default false)
	Set this parameter to true to receive MCC and MNC information in E212 format.

Table 4 – Pricing & Coverage

The HTTP API request returns pricing and coverage information in .csv format that can easily parsed from a script or in html format for easier viewing.

PRICING API EXAMPLE

HTTP Request for retrieving pricing & coverage
http://HOST/bulksms/getpricing.go?username=userXXXX&password=passXXXX&format=csv&type=1mncperline&e212=true
HTTP API request for retrieving pricing & coverage account information. Information will be displayed in csv format. Operators with multiple MNCs will be displayed as one per line for each of their MNCs. MCC+MNC information will be visible at E212 column. Username, password and IPADDRESS are provided to users by their Account Managers. Example information that is returned: "Country";"Operator Name";MCC;MNC;E212;Price(EUR) "Argentina";"Hutchison Telecommunications Argentina";722;35;722035;X.XXXX "Argentina";"Nextel Argentina";722;2;722002;X.XXXX "Argentina";"Nextel Argentina";722;20;722020;X.XXXX "Argentina";"Nextel Argentina";722;0;722000;X.XXXX

VIEW STATISTICS

An HTTP API request is available for users who wish to retrieve statistics of their account. An example of HTTP GET request follows:
http://HOST/bulksms/getstats.go?username=userXXXX&password=passXXXX&fromdate=2013-11-22&untildate=2013-11-22
or
http://HOST/bulksms/getstats.go?username=userXXXX&password=passXXXX&fromdate=2013-11-22&untildate=2013-11-24

Refer to Table 5 for Error Code explanations.

Parameter	Example / Explanation
Username	e.g. userXXXX
	The username of your account.
Password	e.g. passXXXX

	The password of your account
fromdate	e.g. fromdate=2013-11-22
	Start date of statistics period. Format: YYYY-MM-DD
untildate	e.g. untildate=2013-11-22
	End date of statistics period. Format: YYYY-MM-DD

Table 5 – Statistics

The HTTP API request returns statistics in .csv format that can easily parsed for M2M interaction. Format of csv is:

“Country”;”Operator”;”Cost”;”Units”;”Total Cost”

CONCATENATED TEXT MESSAGES

The SMPP API does not offer segmentation of messages by default. If the message length exceeds 160 GSM 7-bit characters the extra characters will be discarded.

If concatenation is required the following guidelines must be followed to encode each part prior to submission. In the case of 8-bit data, the maximum length of the short message within the TP-UD field is 134 (140-6) octets. In the case of GSM 7 bit default alphabet data, the maximum length of the short message within the TP-UD field is 153 (160-7) characters. In the case of 16 bit USC2 data, the maximum length of the short message within the TP-UD field is 67 ((140-6)/2) characters. A UCS2 character must not be split in the middle; if the length of the User Data Header is odd, the maximum length of the whole TP-UD field is 139 octets.

The maximum length of a concatenated short message is 39015 (255*153) default alphabet characters, 34170 (255*134) octets or 17085 (255*67) UCS2 characters.

Each sub part of the concatenated message will be constructed as follows:

1. the message payload should be split in segment of its maximum length
2. the User Data Header indicator should be set (see TP-UDHI)
3. for each segment a header must prep end the data part

4. If the data is GSM 7-bit default alphabet, 1 octet of padding must be added for the data part to start on a septet boundary. The padding octet is set to 0x00. The data coding scheme (TP-DCS) should also be set to 0x00
5. if the data is GSM 8-bit default alphabet then padding is not necessary and the TPDCS should be set to 0x04

Note that the data part should be encoded according to the GSM alphabet

The header of each segment contains information set by the application in the SMS-SUBMIT so that the receiving entity is able to re-assemble the short messages in the correct order. Each concatenated short message contains a reference number which together with the originating address allows the receiving entity to discriminate between concatenated short messages.

The TP elements in the SMS-SUBMIT PDU, apart from TP-MR, TP-SRR, TP-UDL and TPUD, should remain unchanged for each SM which forms part of a concatenated SM; otherwise this may lead to irrational behavior. TP-MR must be incremented for every segment of a concatenated message. SMS-COMMANDs identify messages by TP-MR and therefore apply to only one segment of a concatenated message.

The header should be encoded as follows:

- User Data Header length set to 0x05
- Information Element Identifier type set to 0x00 (concatenated message)
- Information Element Identifier length set to 0x03
- Information Element Identifier data of 3 octet as follows:
  - Octet 1: Concatenated short message reference number
    - This octet shall contain a modulus 256 counter indicating the reference number for a particular concatenated short message. This reference number shall remain constant for every short message which makes up a particular concatenated short message.
  - Octet 2: Maximum number of short messages in the concatenated short message.
    - This octet shall contain a value in the range 0 to 255 indicating the total number of short messages within the concatenated short message. The value shall start at 1 and remain constant for every short message which makes up the concatenated short message.
  - Octet 3: Sequence number of the current short message.
    - This octet shall contain a value in the range 0 to 255 indicating the sequence number of a particular short message within the concatenated short message. The value shall start at 1 and increment by one for every short message sent within the concatenated short message.

The IEI and associated IEI length and IEI data shall be present in every segment of the concatenated SM.

Example header for a 2 part message would be:

- Part 1: 0x050003AE020100<7-bit GSM data>
- Part 2: 0x050003AE020200<7-bit GSM data>

ERROR CODES

During the HTTP GET for balance inquiry or viewing pricing you might get one of the following error codes.

Error Codes	
ERROR #	**Description**
ERROR100	Temporary Internal Server Error. Try again later
ERROR101	Authentication Error (Not valid login Information)
ERROR102	No credits available

Table 5 - SMS Submission Error Codes

ABOUT MOBIWEB

Since its establishment in 1999, MobiWeb has been providing global SMS Messaging for B2B and B2C mobile interaction.

Being a licensed telecommunications service provider in several countries with its own direct ss7 capabilities, MobiWeb is the ideal partner for companies that demand high quality SMS messaging services, meeting the most demanding enterprise requirements.

Using direct connections to telecommunication carriers and operators in the largest cloud data centers spanning across the globe, MobiWeb provides high quality telecommunication solutions to more than 2350 enterprises.

History

MobiWeb is one of the largest SMS messaging providers in the world and a licensed telecommunications service provider in several countries. MobiWeb is the ideal partner for companies that demand high quality SMS messaging services and mobile communications, meeting the most demanding enterprise requirements.

Worldwide Presence

Headquartered in Hong Kong, MobiWeb has offices in United Kingdom and Greece. MobiWeb international presence with offices located in 3 continents ensures client satisfaction covering local and international business needs.

2K+ Business Clients

MobiWeb provides high quality telecommunication solutions to more than 2350 enterprises across the globe.

1000+ Mobile Operators Covered

MobiWeb supports 1000+ mobile networks, in 200+ countries, allowing clients to reach billions of subscribers. Clients take advantage of a constantly expanding global reach.

Unified Mobile Platform and APIs

MobiWeb's proprietary, carrier-grade mobile services platform is developed in-house and designed specifically for high performance, 100% service availability and enhanced security. Simplified global messaging through one API.

People

MobiWeb employees are professionals with high technical and commercial experience, always focused on client satisfaction, technological innovation and successful business relationships.

Reliability and Security

MobiWeb's services boast high availability and reliability through a completely geo-redundant network infrastructure. MobiWeb employs industry-standard security measures to ensure integrity of customers' data.

Innovation and Technology

Through its innovative and technologically advanced services, MobiWeb provides its customers with the help they expect to meet their business needs.

Customer Satisfaction

We consider our customers as our partners. Our highest priority is their satisfaction. Customers enjoy flexible and personalized solutions that meet their most demanding requirements.

24/7/365 Support

Our customer service is available 24/7, every day of the year, providing expertise and help to enterprises, banks, mobile operators, merchants, developers and other clients.

High Quality

MobiWeb offers unrivalled quality with strict Service Level Agreements. Clients receive high quality, technologically advanced services.

Associations

MobiWeb actively participates in the development of the mobile ecosystem as a member of the following associations:

GSMA Associate Member

The GSMA unites nearly 800 of the world's mobile operators

Certifications

GSMA Open Connectivity Solution Provider SMS HUB

Open Connectivity SMS Hub Provider, certified by the GSM Association.

Awards

ROCCO TIER ONE MOBIWEB A2P SMS MARKET IMPACT REPORT ENTERPRISE EDITION 2023

Achieved 7th position in world ranking and Tier-One A2P SMS Provider Status by ROCCO.

CC-GLOBAL AWARDS GCCM 2020 BERLIN SHORTLISTED

Finalist for "Best Global SMS Service Provider - Wholesale Solution" and "Best Regional SMS Service Provider" at Carrier Community Global Berlin 2020 Awards.

MobiWeb Ltd MOST PROMISING Identity & Access Management Solution Providers in Europe 2020 Awarded by CIOReview

Top 10 Most Promising Identity & Access Management Solution Providers in Europe 2020, CIOReviews.

LE FONTI AWARDS WINNER 2018

Excellence of the Year in Innovation and Leadership SMS Messaging Provider Asia, Le Fonti Hong Kong 2018 Awards.

To contact us, please use any of the following:

Sales Support:	sales@solutions4mobiles.com
Technical Support:	support@solutions4mobiles.com
SKYPE:	mobiweb.support
Europe:	+44 203 318 3618
USA:	+1 702 608 8531

Sales Support: sales@solutions4mobiles.com
Technical Support: support@solutions4mobiles.com
SKYPE: mobiweb.support

Support: +44 203 318 3618 (Main Switchboard)
Support: +1 702 608 8531

MobiWeb Group
Canada ❖ Hong Kong ❖ UK ❖ Greece