Serwer SMS.pl
System Obsługi Marketingu Mobilnego

SMPP API Documentation



Introduction 2
Connected to the SMPP API 3
General information 4
Available modes binding 5
SMPP commands 6
Delivery reports 7
Error codes 8
Status messages 9
Sample configuration 10
Receiving messages 11

Introduction

SMPP is a protocol based on the TCP / IP communication level and used to exchange, among others short text messages (SMS) between two IT systems, usually via an encrypted VPN channel.
This connection is dedicated for Subscribers who send large amounts of messages or for those who already have their own integrated software using the SMPP protocol, e.g. with another provider or GSM Operator.
.

Connected to the SMPP API

In order to generate a set of data necessary to connect to the SMPP API, the SMPP API user should be generated in the Customer Panel. To do this, go "Send message -> SMPP API -> SMPP API users" and then fill in the field regarding any restrictions regarding incoming calls from the selected IP address. If the connection can be made from multiple IP addresses, this field should be left blank. The traffic can be limited within a specific IP address (or any pool of addresses after consulting the BOK). After confirming the form, the configuration will be sent to the e-mail address provided during registration.
General Specifications:

Host 1	185.233.160.11
Host 2 (backup)	185.233.160.169
Port	12775
Version SMPP	„3.4”

As part of SMPP in SerwerSMS.pl, it is possible to send an SMS FULL (alphanumeric overwrite) or SMS ECO++ (in the header there will be a variable, 9-digit number). In the case of sending a FULL SMS, the sender field should contain a pre-defined name or the customer's own name that was previously added by, for example, the Customer Panel and accepted by the SerwerSMS.pl administrators. In the case of sending ECO+ SMS messages, the "SMSECO" value must be set as the sender. To send a voice message, use "VOICE" sender ID and set UCS2 encoding (required for compatible speech pronunciation by the teacher).
Due to the fact that the connection via SMPP is not encrypted, for the confidentiality of the data transferred, it is recommended to create a VPN tunnel between the Client and SerwerSMS.pl (details in the price list).

General information

SMPP (Short Message Peer-to-Peer Protocol) is a protocol that allows you to communicate with SMS Center. The protocol defines the information necessary for the exchange of data between the user and the SMSC as well as the operations defined in the context of sending SMS messages. Each query made by SMPP has an assigned response. As part of the SMPP protocol in SerwerSMS.pl it is possible to:

- sending SMS text messages (max 918 characters, the SMS x 6)
- to receive delivery reports
- specify message encoding (is supported 7bit ASCII or UTF-8)
- identifying the message header (ie. the name of the sender)
- incomming messages support (MO)
- support for long messages sent as message_payload, SAR and UDH

To connect and send messages using SMPP, you must have the appropriate software. Recommended and popular programs that are checked with SerwerSMS.pl are eg kannel (www.kannel.org) or ozeki (www.ozeki.hu). In the further part of the documentation there are sample configurations.

Available modes binding

There are three available connection modes under the SMPP protocol:

Transmitter	SMS sending and receiving reimbursement of the action
Receiver	receive delivery reports and other communications with the SMSC
Transceiver	send and receive status reports and delivery through a single connection (recommended connection mode)

Within one SMPP user it is possible to execute 1x transceiver or 1x transmitter and 1x receiver. To make a multiple connection to the system, you must generate additional SMPP accounts in the Customer Panel.

SMPP commands

SMPP interface supports the following commands:

Command	Description	Hex Code
generic_nack	General 'Not Acknowledged' status	0x80000000
bind_receiver	Binding as the 'Receiver'	0x00000001
bind_receiver_resp	The answer to bind_receiver	0x80000001
bind_transmitter	Binding as a 'Transmitter'	0x00000002
bind_transmitter_resp	The answer to bind_transmitter	0x80000002
submit_sm	Sending SMS messages	0x00000004
submit_sm_resp	The answer to submit_sm_resp	0x80000004
deliver_sm	Sending a delivery report	0x00000005
deliver_sm_resp	The answer to deliver_sm_resp	0x80000005
unbind	Closing connection	0x00000006
unbind_resp	The answer to unbind	0x80000006
bind_transceiver	Binding as 'Transceiver'	0x00000009
bind_transceiver_resp	The answer to bind_transceiver	0x80000009
enquire_link	Check the connection status	0x00000015
enquire_link_resp	The answer to enquire_link	0x80000015

Compatible only the above commands.

Delivery reports

Delivery reports returned by the SMPP have the following format:

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

Where fields in succession assume the following values:

Parameter	Description
id	Message ID assigned by SerwerSMS.pl
sub	number of messages sent
dlvrd	number of message delivered
submit date	date and time of notification messages
done date	date and time of the final status messages
stat	status messages
err	error code on failure
text	first 20 characters of the message (optional)

The client application should be constantly connected to the SMPP interface. Where there is a disconnect with the customer and the system receives a delivery report, the report may not be available later

Error codes

Below is a list of errors helpful when searching for the cause of the failure of the operation.

Code	Description
0	No error
3	Incorrect ID command
4	Invalid bind status for the commands sent
5	ESME already bound
10	Invalid source IP address
12	Incorrect message ID
13	Operation Binding rejected
14	Incorrect password
15	Invalid system ID
21	Invalid system type

Below is a list of errors when sending a message.

Code	Description
0x0000000A	ESME_RINVSRCADR Invalid source address
0x0000000B	ESME_RINVDSTADR Invalid destination address
0x0000040B	ESME_RINVBALANCE Insufficient credits to send message
0x00000001	ESME_RINVMSGLEN Message too long

Status messages

The status of the delivery report indicates whether the SMS message was successfully delivered by SMSC. If the SMS message has not been successfully delivered, the delivery report may contain the reason for the error.
Message states and their meaning in SMPP:

State	Description
DELIVRD	message was delivered
ACCEPTD	message was accepted for execution
EXPIRED	message validity has expired
DELETED	message has been deleted
UNDELIV	message was not delivered
UNKNOWN	message status is unknown
REJECTD	message was not sent

Example configuration

Software kannel (www.kannel.org), a sample configuration is as follows:

group = smsc
smsc = smpp
smsc-id = SMPP
host = 185.233.160.11
port = 12775
transceiver-mode = true
smsc-username = LOGIN
smsc-password = HASLO
system-type = SYSTEM_TYPE
preferred-smsc-id = SMPP
interface-version = 34
flow-control = 1
enquire-link-interval = 30
reconnect-delay = 5

Depending on your needs, you can customize the parameters to suit your needs (eg change the binding mode, protocol version or connection checking intervals.
Software Ozeki GW (www.ozekisms.com), you must configure the connection SMPP accordance with the following data:

- Host: 185.233.160.11
- Port: 12775
- Username: login
- Password: password
- Telephone number: sender name
- Service provider name: eg. SerwerSMS.pl
- Protocol: v3.4
- System type: system_type
- Bind mode: transceiver

Receiving messages

Incomming messages (MO) are supported via SMPP for ND, SC, NDI and SCI numbers.