

SMPP Connection Manual

Version 2.0

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1.0 Connecting to the SMS Gateway

Host	78.136.20.226
Port	9000 (ISO-8859-1 encoding) or 8000 (GSM encoding)
Interface	SMPP 3.3 or 3.4
Bind Types	Transmitter (TX)/Receiver (RX)/Transceiver (TRX)
Username	<i>Supplied separately</i>
Password	<i>Supplied separately</i>

2.0 Overview

SMPP (Short Message Peer-to-Peer Protocol) is an open message transfer protocol that enables users to interact with an SMS centre. The protocol defines the information which needs to be exchanged between the user and the SMSC and the operations associated with the exchange of SMS messages.

Every request made using SMPP has an associated response.

The SMPP implementation supports:

- GSM, CDMA, TDMA, iDEN networks
- SMS Messages to a single destination
- Delivery receipts
- Data coding specification
- Validity period

Both SMPP 3.3 and SMPP 3.4 are currently supported.

In order to connect to the SMS Gateway using SMPP you will need to install an SMPP Client. Popular SMPP clients include Kannel (www.kannel.org) and NowSMS (www.nowSMS.com).

3.0 Bind Operations

There are three ways to open a connection using SMPP. You can connect as:

- Transmitter- send short messages to SMSC and receive responses from SMSC.
- Receiver- receive delivery receipts from the SMSC and return the corresponding responses.
- Transceiver- send and receive messages to and from the SMSC over a single SMPP session.

To establish these bind states, please consult section 4.0 SMPP Commands.

4.0 SMPP Commands

The SMS Gateway supports the following SMPP commands:

Command	Description	Hex Code
generic_nack	Generic 'Not Acknowledged' status	0x80000000
bind_receiver	Binds as 'Receiver'	0x00000001
bind_receiver_resp	Response to bind_receiver	0x80000001
bind_transmitter	Binds as 'Transmitter'	0x00000002
bind_transmitter_resp	Response to bind_transmitter	0x80000002
submit_sm	Submit an SMS message	0x00000004
submit_sm_resp	Response to submit_sm_resp	0x80000004
deliver_sm	Submit an SMS with delivery receipt	0x00000005
deliver_sm_resp	Response to deliver_sm_resp	0x80000005
unbind	Close bind instance	0x00000006
unbind_resp	Response to unbind	0x80000006
bind_transceiver	Bind as 'Transceiver'	0x00000009
bind_transceiver_resp	Response to bind_transceiver	0x80000009
enquire_link	Check link status	0x00000015
enquire_link_resp	Response to enquire_link	0x80000015

Please note any command in the SMPP specification which is not listed above is not currently supported.

5.0 Delivery Receipts

SMPP delivery receipts take the following format:

```
id:IIIIIIIIII sub:SSS dlvrdd:DDD submit date:YMMDDhhmm done
date:YMMDDhhmm stat:DDDDDD err:E Text: . . . . .
```

Where:

- id- the message ID allocated to the message by the server
- sub- the number of short messages originally submitted
- dlvrdd- the number of short messages delivered
- submit date- the date and time at which the short message was submitted
- done date- the date and time at which the short message reached its final state

- stat- the final status of the message. Please see section 7.0 Message Status for more information.
- err- where appropriate this may hold a network specific error code or an SMSC error code
- text- the first 20 characters of the short message

Please note SMPP 3.3 and 3.4 differ such that message IDs returned from an SMPP 3.3 connection are encoded as hex whereas 3.4 SMPP connections return message IDs as ASCII encoded integers.

6.0 Transaction Error Codes

To help you identify what might be causing a problem with your SMPP transaction, here is a list of error codes with a small description.

Code	Description
0	No error
3	Invalid command ID
4	Invalid bind status for given command
5	ESME already in bound state
10	Invalid source address
12	Message ID is invalid
13	Bind failed
14	Invalid password
15	Invalid system ID
20	Message queue full
21	Invalid system type
97	Invalid scheduled delivery time
98	Invalid message delivery period

7.0 Message Status

The delivery report status indicates whether the SMS message was delivered successfully by the SMSC. If the SMS was not successfully delivered then the delivery report may give a reason.

SMPP message states and their meanings are listed here for your convenience:

Status	Description
DELIVRD	Message delivered to destination
ACCEPTD	Message is in accepted state
EXPIRED	Message validity period has expired
DELETED	Message has been deleted
UNDELIV	Message is undeliverable
UNKNOWN	Message is in unknown state
REJECTD	Message is in rejected state

Please note some SMSCs will still return a delivery receipt when a message has been accepted or if the message is buffered in the SMSC, for example if the handset is switched off. This will use the UNKNOWN state and sets the buffered special parameter in the deliver_sm under SMPP 3.4.