



SMPP Protocol Specifications ***Version 1.0.2***

01/08/2008

1. Revisions

Rev#	Date	Remark
1.0	23-11-2007	Initial version
1.0.1	20-02-2008	More details added
1.0.2	01-08-2008	Added support for optional network operator field in DELIVER_SM

2. Conventions

This document describes the subset of the SMPP 3.4 protocol used for message exchanges between the Mpulse Gateway and customers' applications. This document will not describe the message format details of the SMPP 3.4 protocol – please refer to the official specification instead: http://www.smsforum.net/SMPP_v3_4_Issue1_2.zip. New features introduced in the 5.0 specifications are not supported.

3. Supported subset of the SMPP 3.4 protocol

The Mpulse Gateway is compatible with the SMPP protocol, but does not support all the commands officially required by a compliant implementation. This paragraph will define the limitations of the Mpulse Gateway implementation of the SMPP protocol.

3.1. Throughput

Default throughput per account is 5 SMS per second. This limitation can be removed or modified upon request. If the allowed throughput is exceeded, the 0x58 error code is returned in the response.

3.2. BIND (article 4.1)

Only one simultaneous connection per account is allowed. All available bind modes (RECEIVED, TRANSMITTER, and TRANSCEIVER) are supported. However, a client must use TRANSCEIVER for bi-directional messaging (sending and receiving messages).

3.3. SUBMIT_SM data-coding (article 4.4, ref. 5.2.19)

Mpulse supports the following *data-coding* values (only):

- 0 and 3 for SMS (only the Latin alphabet (ISO-8859-1) is supported and will be assumed as the default encoding)
- 4 for WAP Push

Binary and concatenated messages are currently not supported.

The same rules apply for DELIVER_SM messages (article 4.6).

3.4. List of supported operations

The Mpulse Gateway supports the following SMPP operations:

- BIND: Used to open a new connection and authenticate with the Mpulse Gateway.
- SUBMIT_SM: Submit SMS messages with a single destination address.
- DELIVER_SM: Used to deliver a mobile originated message to the client application.



- ENQUIRE_LINK: Message sent by the client to make sure the connection does not time-out when no message has been sent for an extended period of time.
- UNBIND: Log out and close the connection.

All other operations are currently not supported. A GENERIC_NACK message will be sent in response to any other command received by the Mpulse Gateway.

4. Modifications of the original SMPP 3.4 protocol

4.1. Additional Network Operator field in DELIVER_SM

If requested, the network operator field in the DELIVER_SM operation can be activated for a SMPP account. Each network operator can be uniquely identified by the combination of a mobile country code (MCC) and the mobile network code (MNC) (refer to http://en.wikipedia.org/wiki/Mobile_Network_Code for a list of possible values).

The MCC and MNC will be encoded into an optional SMPP TLV parameter with the tag number 0x1403 in the format *MCC/MNC*.

Example: Mobile-originated messages from Tele2Tango in Luxembourg will contain the following value for the TLV with tag number 0x1403: 270/77