

0 Connection parameters

Domain: smpp.easyphone-ip.com

Port: 8888 or 8889

user: your user in the application

password: your password exactly as it was saved, with upper and lowercase

If you want you can replace domain with ip address: 167.114.28.227

1 Overview

This document provides technical details intended for software architects and designers who wish develop their own SMPP v3.4 clients in order to make use of our SMPP gateways.

This document will only describe SMPP connectivity issues.

2 About SMPP

The Short Message Peer to Peer (SMPP) is an open, industry standard protocol designed to simplify interconnection between various entities and allow sending and receiving short text messages (SMS) over Internet.

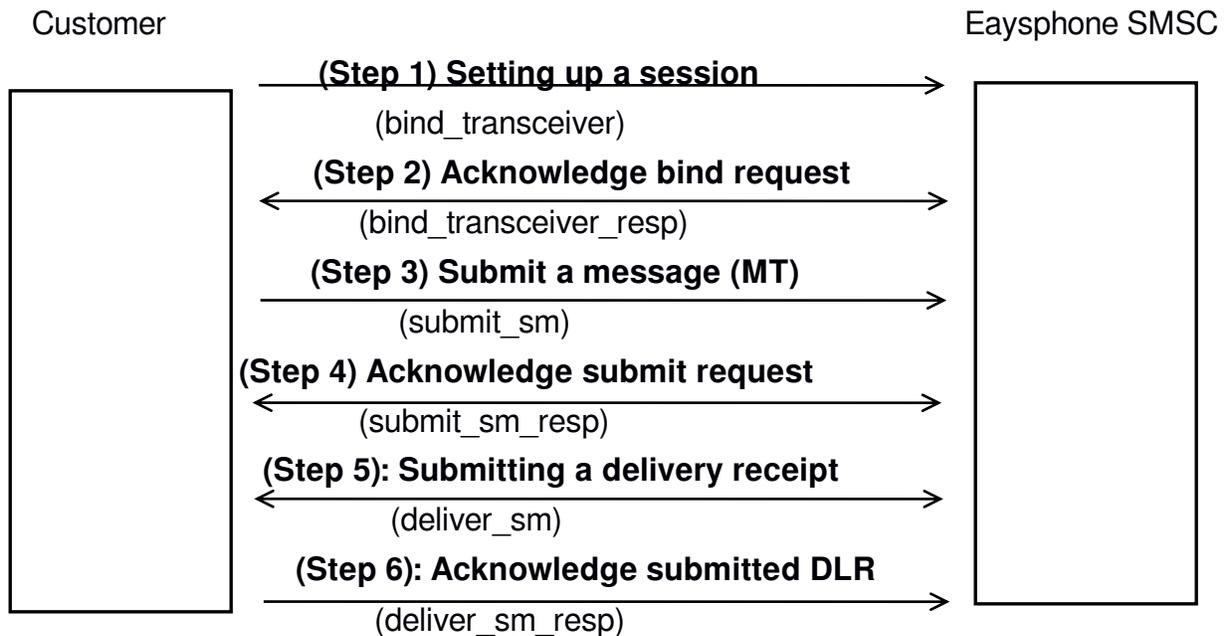
Easyphone Messaging is compliant with SMPP version 3.4.

Connecting to Easyphone Messaging Service through SMPP protocol requires full understanding of the SMPP protocol. From this point on, in this document the client's application will be referred to as ESME (external short message entity) and Easyphone SMSC will be referred to as SMSC.

For information on further reading about this protocol, please see the References chapter at the end of this document.

The SMPP SMS-MT solution is a service which enables you to send high quality SMS to Easyphone network using the SMPP protocol.

Figure 1. The SMS-MT SMPP Communication Process



The arrows show direction of data flow. Each arrow is labeled with the data type carrying. The essential data that is transported appears in brackets following the data type. A detailed overview of the communication process is provided in section 5 of this document.

3 Requirements for SMS-MT SMPP Implementation

To implement and use the SMPP SMS-MT, the customer should have available certain resources that are not provided by Easyphone. There are many different models of SMPP clients available. The customer should choose one that is suitable for his needs.

In order to be able to use Easyphone SMSC to send messages, you need to fulfill the following requirements:

- 1) To have a valid account with Easyphone
- 2) To have balance on your account
- 3) To have a valid SMPP v3.4 client software in order to be able to connect to Easyphone

SMSC. SMPP client software can be purchased from various companies; alternatively you can build one.

Supported PDUs

<i>ESME to SMSC</i>	<i>SMSC to ESME</i>
bind_transceiver	bind_transceiver_resp
bind_transmitter	bind_transmitter_resp
bind_receiver	bind_receiver_resp
submit_sm	submit_sm_resp
	enquiry_link_resp
delivery_sm_resp	delivery_sm
unbind	unbind_resp

Once the requirements have been met, you can connect to the following Easyphone SMSC:

Domain: smpp.easyphone-ip.com

Port: 8888 or 8889

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4 Technical Overview

SMPP is a session based peer to peer protocol. 'Session based' means a customer has to establish a connection to Easyphone and use this connection to send messages. 'Peer to peer' means that both the customer and Easyphone (i.e. the peers) may use operations defined by the SMPP protocol, depending on the type of session. Authentication is done during set up of this connection. After initial authentication, the session between the customer's system and Easyphone system (i.e. the peers) is kept open and alive.

There are three types of SMPP sessions:

- Transmitter session: used just for sending SMPP requests to Easyphone by the customer
- Receiver session: used just for sending SMPP requests from Easyphone to the customer.
- Transceiver session: used in both of the above ways.

Easyphone supports the following SMPP operations:

bind_transmitter

Used by the customer for establishing a transmitter session to Easyphone. Answered by Easyphone with a "bind_transmitter_resp".

bind_receiver

Used by the customer for establishing a receiver session to Easyphone. Answered by Easyphone with a "bind_receiver_resp".

bind_transceiver

Used by the customer for establishing a transceiver session to Easyphone. Answered by Easyphone with a "bind_transceiver_resp".

unbind

Used by the customer for closing a session to Easyphone. Works with every session type. Answered by Easyphone with a "unbind_resp".

submit_sm

Used by the customer for sending a short message to Easyphone. Works with transmitter and transceiver sessions. Answered by Easyphone with a "submit_sm_resp", which contains the message id. The message id is a unique identifier for each message.

deliver_sm

Used by Easyphone for sending a DLR message to the customer. Works with receiver and transceiver sessions. Should be answered by the customer with a "deliver_sm_resp".

enquire_link

May be used by the customer to check if a session is still working. Works with every session type. Easyphone can answer with an enquire_link_response to any incoming enquire_link, nevertheless Easyphone doesn't sent an enquire_link request due to the connection is tended to keep alive all the time .

5 Detailed Communication Process

The following section describes each step of the communication process. Each step is described individually with examples of the possible URL that may be used. For an overview of the process, please refer to Figure 1.

Step 1 - Setting up a session using a bind request

After entering the data given by Easyphone (IP, port, username, password) into the SMPP client, a connection between the customer's system and Easyphone will be established using one of the bind operations described above. For transmitting messages to Easyphone, a transmitter or transceiver session is needed. Please note that after a session is established, any number of messages can be transmitted via this session. For receiving delivery receipts, a receiver or transceiver session is needed.

The only required parameters in 'bind' commands are 'system_id' and 'password'. All other parameters will not influence the Easyphone SMSC behavior in any way.

Step 2 - Acknowledge bind request

After Easyphone received a bind request with the correct authentication, a bind_resp will be issued and the session is available for communication.

Step 3 – Submitting a message

By using the submit_sm operation, the customer sends a message to Easyphone.

TON (Type of number) and NPI (Numbering plan identification) are special parameters within the

SMS message which describes the type of source and destination address used in the message.

For both source and destination address these parameters are defined as:

Parameter	Description
s_ton	source TON
s_npi	source NPI
d_ton	destination TON
d_npi	destination NPI

Because the destination address is usually represented in full international format, the parameters 'd_ton' and 'd_npi' must be always set to value '1'.

The full international format expected can begin with or without '+'. Example: "+13234334345" or "134343345"

The DCS (data coding scheme) which is a parameter within sms message that defines the type of content, supported in Easyphone SMSC is 'ISO-8859-1'.

That means that the content of the messages, regardless the value of the DCS parameter, will be treated as ISO-8859-1 8-bit text.

Step 4 - Acknowledge submitted message

After Easyphone received a correct submit_sm request, a submit_sm_resp will be issued. The submit_sm_resp contains the message id in the message_id parameter, which is a unique identifier for each message. The submitting of the message to Easyphone is closed with the issuing of the submit_sm_resp. The messages are stored in Easyphone SMSC and will be delivered to the receiver. If the initial delivery attempt is not successful – e.g. the receiving mobile phone is turned off – further attempts of delivering the message will be made.

Step 5 – Submitting a delivery receipt (DLR)

After a certain message is either delivered or cannot be delivered, Easyphone creates a delivery receipt if this is requested in the initial submit_sm. The DLR will be submitted to the customer via an existing receiver or transceiver session using the deliver_sm operation. The delivery receipt itself is included in the text parameter of the deliver_sm PDU.

Easyphone DLR format:

The text in the deliver_sm will be in the following format:

“ id:<Easyphone messageid> sub:001 dlvr:001 submit date:YYMMDDhhmm done date:YYMMDDhhmm stat:DDDDDDD err:0 Text:”

Possible values for DDDDDDD :

- DELIVRD – message was successfully delivered
- UNDELIV – message could not be delivered, e.g. due to unknown number

Text: the first 20 characters of the original message.

Step 6 – Acknowledge submitted DLR

After the customer received a deliver_sm, he must acknowledge the receipt by answering with a deliver_sm_resp.