SMSEASYSMS

SMPP Server User Guide

Version 2.0

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Introduction

SMPP means Short Message Peer to Peer, (SMPP), protocol is an open industry standard messaging protocol designed to simplify integration of data applications with wireless mobile networks such as GSM, TDMA, CDMA and PDC. The protocol is widely extended in the mobile telecommunications industry. The SMPP protocol specification is freely available from **http://www.smpp.org**

SmsEasySms Supports version 3.3 and 3.4 of the SMPP protocol.

Requirements

The following requirements must be met to enable the sending of short messages (SMS) via **SmsEasySms**:

- You need a client account
- You need to have enough credit in your client account of SmsEasySms

Access to services **SmsEasySms** services is subject to our general terms and conditions of business.

You can reach our technical hotline under the following telephone number:

902 014 480 (from Spain) or +34 964 523 331 (from abroad)

Monday to Friday between 9:00am-07:00pm, CET

Glossary

The parameters used in the **SmsEasySms** SMPPServer:

- **SMS:** Short Message Service
- **PDU:** Protocol Description Unit (way how the SMSs are sent)
- **DR:** Delivery Report notification
- **SMPPServer:** SMPP Server that allows to the clients to send SMSs
- **SMPPClient:** Client that wants to send SMSs through our SMPPServer
- **IP:** IP number where the SMPPServer is hosted*
- **Port:** Connection port that the SMPPServer is listening*
- **System_id:** Unique ID system sent to the SMPPClient in a confidential mail
- **Password:** Unique passwordsystem sent to the SMPPClient in a confidential mail
- **Client_id:** Client identifier provided to the SMPPClient
- **Account_id:** Account identifier for credit chargement
- **System_type:** Identifies the type of ESME system requesting to bind as a transmitter with the SMSC. This parameter is used to specify client_id and account_id.

* **SmsEasySms** will provide you with the IP address and port number.

Technical information

The GSM specifications have limited the Short Message from the SMSC to the handset to 140 octets. If 7 bit encoding is used we may deliver 160 characters to the handset, otherwise for 8 bit data the maximum number of characters will be limited to 140.

The character sets supported by the platform **SmsEasySms** Platform are GSM7, UCS2 and ISO- 8859-1 (ISO Latin 1)

The SMPPServer allows to the SMPPClient to send SMSs. This implies that the SMPPClient must connect to the SMPPServer using some PDU connection parameters.

Connection configuration

- **SMPP Bind Type:** Transceiver or transmitter & receiver.
- **Asynchronous Pending Transactions Windows:** 10.
- **SMPP Version:** 3.3 or 3.4.
- **Max allowed sessions per server:** 2.

Mandatory parameters

- **Hosts::** You can connect to any from the following servers. The ESMSC only can get delivery report by the server that has accepted the message. If you want to use both servers at same time you need to connect a transceiver or receiver to each server to ensure to gather all delivery reports.
    - 89.17.205.211 (primary server)
    - 89.17.205.234 (backup server)
- **Port:** 5091.
- **System_id:** alphanumerical secret string that will be given to the SMPPClient by phone, email or SMS
- **Password:** alphanumerical secret string that will be given to the SMPPClient by phone, email or SMS

Other recommended parameters

- **bind-mode:** transmisor-receptor
- **sync-mode:** async.
- **addr-ton:** 1
- **addr-npi:** 1
- **source-ton:** 5
- **source-npi:** 0
- **destination-ton:** 1
- **destination-npi:** 1

Message encoding

- **data-coding:** 0 (for GSM7 encoding)

SMPP TON/NPI Parameters

SMPP parameters	Type of address	TON	NPI
Destination address	Always international	1	1
Source address	International	1	1

SMPP parameters	Type of address	TON	NPI
	National/shortcode	2	1
	Alphanumeric	5	0

International originators
Source address and destination address in international format shall not contain any leading “+” or “00”, but only starting with the country code.

Sample International Source Address
Displayed on handset: +34609939891
SMPP parameters: TON = 1
NPI = 1
SOURCE_ADDRESS = "34609939891"

Alphanumeric originators
Length of an alphanumeric originator is limited to 11 characters; this limit is set by the pertinent GSM Standards.

Error Codes

Bind Response error codes

Error Code	Error Name	Description	Call to Action
0x00000000	OK	Message received and processed	
0x0000000D	ESME_RBINDFAIL	Bind failed (login/bind failed – invalid login credentials or login restricted by IP address)	Verify System_id value and send the proper value
0x0000000E	ESME_RINVPASWD	Invalid password (login/bind failed)	Verify password value and send the proper value
0x0000000F	ESME_RINVSYSID	Authentication error	Check username, password, client ID and account ID

Submit Response Error codes

Error Code	Error Name	Description
0x00000000	OK	Message received and processed
0x00000401	NO_CREDIT	Your Account Balance is too low
0x000000FE	Delivery Failure	The message ca not be routed to SMSC or Gateway. The main reason could be internal server issues, causing the loose of conection with the SMSC, routing errors or other errors.
0x00000009	Airbag error	Indicates that the same message has been sent more than 3 times within less than 30 minutes. It is considered that the message is the same when the sender, destination and the text are also the same. The objetive of this “antifloop” mechanism is avoid possible errors to clients avoiding to send the same message several times.
0X0000000A	Invalid Source Address	Invalid Source Address
0x0000000B	Invalid Dest Addr	Invalid Dest Addr
0x00000402	Invalid messaje	The message is invalid due to the lenght.

Delivery reports

SMPPServer provides for return of an SMSC delivery receipt via the **deliver_sm**or **data_sm** PDU, which indicates the delivery status of the message. The information content of an SMSC Delivery Report could be inserted into the **short_message** parameter of the **deliver_sm** operation. The format for this Delivery Report message is specific according to SMSC vendor, but is a typical example of:
id:IIIIIIIIII¡ sub:SSS dlvrd:DDD submit date:YYMMDDhhmm done date:YYMMDDhhmm stat:DDDDDDD err:E Text: . . . . . .

The fields of the above delivery report example are explained in the following table:

Field	Size(octects)	Type	Description
id	10	C-Octet String (Decimal)	The message ID allocated to the message by the SMSC when originally submitted.
sub	3	C-Octet String (Decimal)	Number of short messages originally submitted. This is only relevant when the original message was submitted to a distribution list.The value is padded with leading zeros if necessary.
dlvrd	3	C-Octet String (Decimal)	Number of short messages delivered. This is only relevant where the original message was submitted to a distribution list.The value is padded with leading zeros if necessary.
submit date	10	C-Octet Fixed Length String	Time and date at which the short message was sent. In the case of a message which has been replaced, this indicates the date when the original message was replaced.
done date	10	C-Octet Fixed Length String	Time and date at which the short message reached it’s final state. The format is the same as for the submit date.
stat	7	C-Octet Fixed Length String	The final status of the message.
err	3	C-Octet Fixed Length String	In this case, this may contain a Network specific error code or an SMSC error code for the attemption of delivery of the message. These errors are Network or SMSC specific and are not included here. Probably in next versions this section will be more specific.
text	20	Octet String	The first 20 characters of the short message.

Message States

Message State	Final Message Status	Description
DELIVERED	DELIVRD	Message is delivered to destination
EXPIRED	EXPIRED	Message validity period has expired
DELETED	DELETED	Message has been deleted
UNDELIVERABLE	UNDELIV	Message is undeliverable
ACCEPTED	ACCEPTD	Message is in accepted state (i.e. has been manually read on behalf of the subscriber by client service)
UNKNOWN	UNKNOWN	Message is in invalid state
REJECTED	REJECTD	Message is in a rejected state

Actions for Error Codes when response is submited

Payment

When client receives NO_CREDIT error messages:

- Stop sending further messages
- Contact call center

Binding Guidelines

Only one session is available for systemID provided to the client.

- When session drops(due to network fluctuation or planned unbind), before rebinding to the server, the client application should wait for 60 sec before issuing the bind request
- The session should not drop frequently. Once bind, session should stay for long time rather than issuing bind request.
- Client should not attempt to spam the server with bind request.
- Before unbind, client should issue unbind request to the system

Enquirelink - keep alive signal

- The Enquirelink signal should be sent every 30 sec. Otherwise client session will be dropped by the platform **SmsEasySms**.
- Client should not attempt to spam the server with Enquirelink request.

Resolving bind problems

- First try to ping server IP:
  E. g.: ping 89.17.205.211
  If you are not able to ping Sever IP, contact client care
- If ping is successful connect through telnet
  E. g.: telnet 89.17.205.211 . If you are not able to connect via telnet, contact client care
- If you get any error bind response, please check the error codes mentioned in the section 5.1
- If all confirmations are correct and you are still connection problems, please contact client care.

Frequently Asked Questions

- **How Long Should The ESME Application Wait For A submit_sm_response?**
  Server provides response in transaction mode. Means the server responses itselt. This depends on the operator delay. Otherwise better option is to send the messages in the async manner.
- **What IS "Enquire_Link" And Do I Need To Support It?**
  This command is used to provide a confidence-check of the communication path between ESME and the SMSC. All SMPP sessions on the SMSC are configured with an 80 seconds idle timeout. All ESMEs are expected to initiate an enquire_link every 60 seconds to ensure the session is not closed by the SMSC during idle periods