



PT. Teknologi Komunikasi Digital Indonesia (TKDI) SMS Gateway

SMPP Interface





Document Control

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1. Abbreviation

DR	Delivery Receipt
MO-SMS	Mobile Originated SMS
MT-SMS	Mobile Terminated SMS
SMPP	Short Message Peer-to-Peer

2. Overview

This documentation provides SMS Gateway **SMPP** Interface specification to communicate with SMS Gateway via **SMPP** Protocol.

SMPP is a protocol commonly used by telecommunication industry for exchanging SMS messages between **ESME**. SMPP v3.4 is the most widely supported standard among them.

3. SMS Gateway SMPP Interface

3.1. Connection Binding

SMPP v3.4 support binding mode Tx, Rx and TRx. Diagram below depicts **SMPP** binding flow.

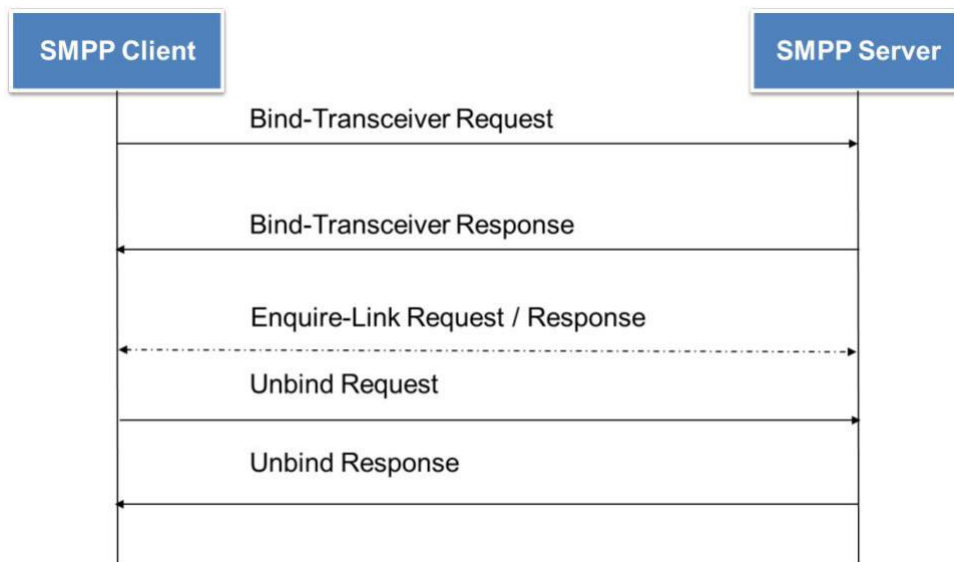


Figure 1: SMPP Binding Flow

Connection Details

Items	Values
Host	14.102.145.93
Port	29010
Username	TBA
Password	TBA
System Type	Sms
SMPP Version	3.4
Enquire Link Interval	60 seconds
Source TON	1 - International 2 - National 5 - Alphanumeric
Source NPI	0 - Unknown 1 - E.164 ISDN
Destination Ton	1 - International
Destination NPI	1 - E.164 ISDN
Bind Type	Transceiver (TRx) or Transmitter(Tx) or Receiver(Rx)
Max Allowed Bind	2

Allowed IP	93.158.78.4 209.95.131.8
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Figure 2: SMPP Connection Details

3.2. Message Termination

SMPP v3.4 widely used operation “Submit-SM” and “Deliver-SM”.

“Submit-SM” - Short message submission from ESME to Gateway. Mainly used to submit Mobile Terminated SMS(MT-SMS) to Gateway.

“Deliver-SM” - Short message submission from Gateway to ESME. Mainly used by Gateway returned Delivery Report(DR) or Mobile Originated SMS(MO-SMS).

Diagram below depicts SMPP termination flow.

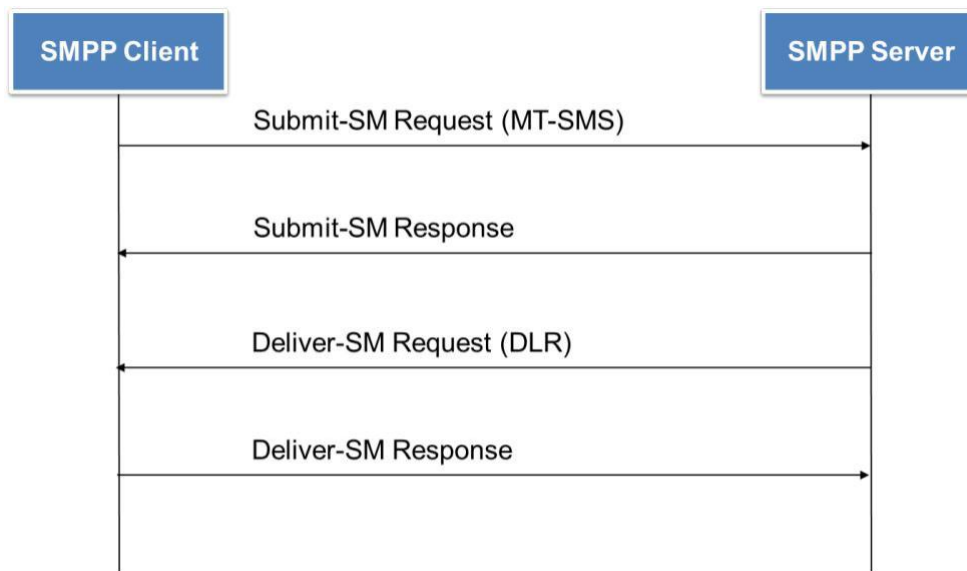


Figure 3: SMPP Message Termination Flow

Error Code Details

Err. Code	Description
000	No error.
001	Absent subscriber.
002	Handset memory capacity exceeded. Handset has run out of free memory to store new message.
003	Equipment protocol error.
004	Equipment not equipped with short-message capability.
005	Unknown subscriber. The IMSI is unknown in the HLR.
006	Illegal subscriber. The mobile station failed authentication.
007	Teleservice not provisioned. Mobile subscription identified by the MSISDN number does not include the short message service.
008	Illegal equipment. IMEI check failed, i.e. The IMEI is either blacklisted or not whitelisted.

009	Call barred. Operator barred the MSISDN number.
010	Facility not supported. VLR in the PLMN does not support MT short message service.
011	Subscriber busy for MT short message. Mobile terminated short message transfer cannot be completed because: <ul style="list-style-type: none"> a. another MT SM transfer is going on and the delivery node does not support buffering. b. another MT SM transfer is going on and it is not possible to buffer the message for later delivery. c. the message was buffered but it is not possible to deliver the message before the expiry of the buffering time defined in GSM 03.40.
012	System failure. Task cannot be completed because of a problem in another entity.
013	Data missing. Necessary parameter is not present in the primitive.
014	Unexpected data value. Necessary data is badly formatted in the primitive.
015	Unidentified subscriber. Subscriber is not contained in the database and it has not or cannot be established whether or not a subscription exists.
015	Absent subscriber. Unidentified subscriber via MSC / SGSN.
016	Absent subscriber. No paging response via MSC / SGSN.
017	Absent subscriber. IMSI detached.
018	Absent subscriber. Roaming restriction.
047	Temporary protocol error.
050	SMS rejected due to congestion.
051	SMS malformed. SMS is not formed correctly.
052	SMS expired.
055	Unable to find outbound route for this SMS.
057	Timeout waiting for response from peer.
058	Throttling Error. The user has exceeded allowed message limit.
081	Charging Failed
255	Unknown error.

Figure 4: SMPP Error Code List