
SMS Engine Basic Edition

version 5.0

Manual for System Integrator and Software Developer

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ACKNOWLEDGEMENT

We like to extend our appreciation to Mr. Lai Yong Sing (a student of UNIVERSITY PUTRA MALAYSIA) who has contributed to the development of the SMS Engine Basic Edition (version 5).

REVISION HISTORY

<i>EDITION</i>	<i>ISSUED DATE</i>	<i>REMARK</i>
1 st	28th of April, 2006	Draft release
2 nd	22 nd of July, 2006	Date, time of message received by SMSC
3 rd	11 th of October, 2006	Release version 3.6
4 th	8 th of December, 2006	System Requirement, Linux and PHP
5 th	13 th of December, 2006	Release version 3.9
6 th	8 th of August, 2007	E-mail address of support revised
7 th	24 th of July, 2008	Release version 5

INTRODUCTION

MOBITEK SMS Engine is part of the SMS Gateway Development Kit (SMS GDK). SMS GDK is completely free of any registration, licensing or deployment fees. It may be deployed freely for use with any software built by software developer or integrated by system integrator, whether the software is commercial or not. It is given for free when GSM modem is purchased. Therefore, MOBITEK System Sdn. Bhd. does not provide any support nor training to system integrator or software developer (SI/SD) on the use of MOBITEK SMS Engine.

SMS Engine is a Windows application that sends and receives SMS. System integrator and software developer (SI/SD) do not need to write any code to build a SMS Gateway. The **SMS Engine** uses MS Access database – “SMSEngine5.mdb” to store incoming SMS, and to check if there is any pending SMS to be send out. SI/SD only needs to insert record into database to send out SMS, and retrieve record from database to read SMS. The **SMS Engine** has taken care all SMS transactions.

FEATURE of SMS ENGINE BASIC EDITION

1. **Rapid Development:** no need to waste time in developing a programme to handle incoming and outgoing SMS. Install the SMS Engine, and make connection to the database – “**SMSEngine5.mdb**”.
2. **SIM Unlock:** enter the PIN, and the SMS Engine will unlock the SIM card.
3. **Polling:** set the frequency of database polling – this will control the speed of the sending and receiving SMS.
4. **Delivery Status Report:** a report will accompany with each outgoing SMS to report whether the SMS is delivered or not.
5. **Routing:** sending to specific numbers. For example, if Maxis SIM card is used, then SMS Engine will only send SMS to numbers starting with 012 – this will allow cost saving as SMS within the same network is cheaper than different network.
6. **Direction:** to speed-up the broadcast, SMS Engine can be configured to send SMS only.
7. **Re-branding:** SI/SD can change the name of the SMS Engine.
8. **Query Balance:** if prepaid is used, the credit balance can be queried.
9. **Reload:** if prepaid is used, a top-up can be performed.

REQUIREMENT

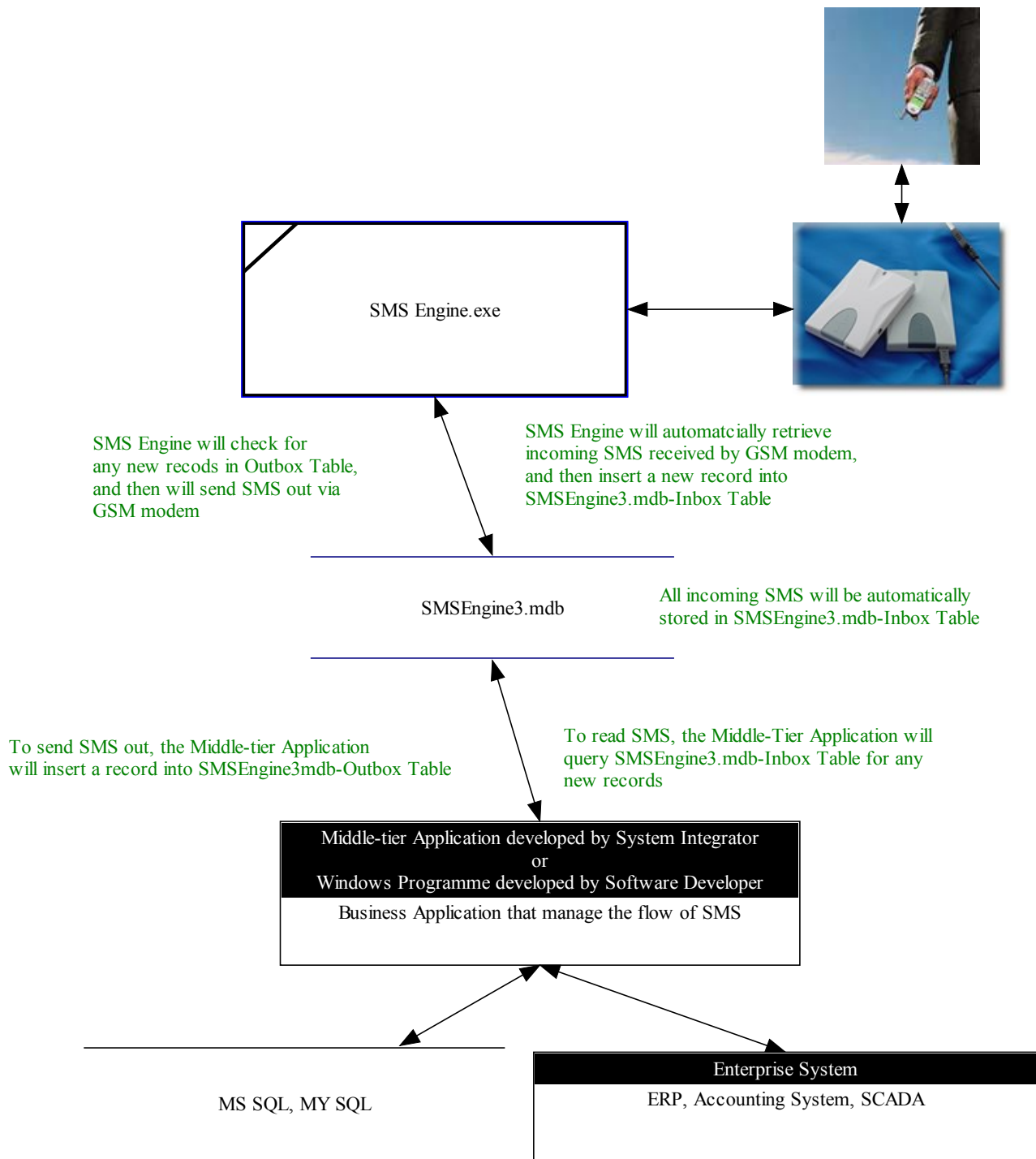
1. SI/SD must posses knowledge of:-
 - a) Database programming (ODBC, ADO, ADO.net);
 - b) SQL statement;
2. GSM modem Type SGDK supplied by MOBITEK Sysyem
3. SIM card
4. PC running on any one of these operating systems:-
 - a) Windows 2000 Service Pack 4
 - b) Windows XP Home / Pro Service Pack 2 or later
 - c) Windows Server 2003 Service Pack 1 or later

NOTE: MS Access is NOT compulsory in order to run SMS Engine Basic Edition

LIMITATION

1. SMS cannot be longer than 160 characters length.
2. SMS must be in text format, cannot be in Chinese, Arabic, etc.
3. Windows Vista not supported.

SYSTEM ARCHITECTURE DIAGRAM



INSTALLATION

1. Read the installation guide in the CD to install and configure the GSM Modem.
2. Run "Setup.exe" (from CD) to install the SMS Engine.

WARNING: There is no download link on our web site, please make a duplicate copy of the CD.

CONFIGURATION

1. Click on **Setting** then choose **SMS Modem Setting**.



2. Configure the modem.

GSM Modem Setting

SIM Setting
 SIM Card No. PIN

Modem
 COM Port Poll seconds
☒ Delivery Status Report

Routing
☒ All ☐ DiGi (016) ☐ 014
☐ Maxis (012) ☐ TMtouch (013)
☐ Hotlink (017) ☐ Celcom (019)

Direction
☒ 2 way
☐ 1 way- Read SMS
☐ 1 way- Send SMS

GPS
☒ Enable GPS Feature
☐ GPS data with "Tag Number "

SIM Setting

SIM Card no: also known as MSISDN
 PIN: to unlock SIM operator depending on the number

Modem

COM: Enter the port number which the GSM Modem is connected to the PC

Poll: Set how frequent the SMS Engine should access the database. If you set it to 3 seconds, then the SMS Engine will read incoming SMS, store into Inbox and query the Outbox to send out SMS in every 3 seconds.

Delivery Status Report: If checked, SMS Engine will check for the report for each outgoing SMS.

Routing

Check "All" to instruct SMS Engine to send SMS to all mobile numbers or checked the appropriate box to instruct SMS Engine to send out SMS selective numbers only. If you set to Maxis (012), then the SMS Engine will only send SMS to mobile numbers starting with 012 only.

Direction

Set the GSM modem to 2 way, 1 way read only, or 1 way send only. If you set it to 1 way read, the SMS Engine will only read incoming SMS and will not send out.

GPS

This feature is NOT AVAILABLE.
 It is only available for Modem Type VTDK.
 Please contact us if you are interested.

3. When configuration is finished, click "Save Setting" button.

4. To start the SMS Engine, click "Start" button.

Check Balance
To check credit balance of your account

Reload
To reload or top-up your account

Test
To send out a test SMS to see if SMS Engine is properly configured

Fail
Fail Message will increase one if the SMS Engine fail to send out a message

GPS
This feature is not available. It is only available for Modem Type VTDK. Please contact us if you are interested.

Sent
Sent Message will increase one if the SMS Engine sent out a message

In
Incoming Message will increase one if the SMS Engine receive a message

Start
Engine will check the "outbox" table for any outgoing SMS to be send out and any incoming SMS will be insert into "inbox table"

Stop
To stop the SMS Engine

Reset
To reset all counters to 0

DATABASE STRUCTURE

1. Database name: SMSEngine5.mdb

NOTE: You do not need to install MS Access

2. Only 2 tables can be used for integration:-

- a) Inbox – SMS Engine stores incoming SMS
- b) Outbox – SMS Engine will retrieve records and send out SMS

WARNING: DO NOT touch other tables. If you do so, then SMS Engine will fail to run properly

3. Only 2 tables can be used for integration, Inbox and Outbox.

INBOX TABLE

To read incoming SMS, SI/SD's application connects to the database, query the Inbox table where status of the message is "New". After the query, SI/SD's application change the status from "New" to "Read" or "Old".

Field name	Data Type	Description	Remarks for System Integrator
MsgID	Long	Incoming SMS unique identifier key.	Auto number. Reserved. Do not modified.
Message	Text (255)	Incoming SMS. Maximum of 160 characters.	Reserved. Do not modified.
Mobile	Text (50)	Sender Mobile number of incoming SMS .	Reserved. Do not modified.
Status	Text (50)	Status of incoming SMS.	Status = "New" for new SMS System integrator can changed it to "Read", "Old" etc.
StatusID	Text (50)	Incoming SMS status identifier key.	Default is "0". System integrator can assigned a status ID.
DateTime	Date/Time	Date and time of incoming SMS received by SMSC. It is NOT the date, and time of the PC.	Reserved. Do not modified.
Modem	Text (50)	Modem that receives incoming SMS.	Reserved. Do not modified.

WARNING: All fields are reserved. System integrator cannot rename nor delete the fields or else the SMS Engine will malfunction.

Green coloured field: System integrator can change the field value (but not the the field name)

To read all new SMS

Select * from Inbox where Status = 'New'

To change the status of new SMS to "read"

Update Inbox Set Status = 'Read' Where Status = 'New'

or

Update Inbox Set Status = 'Read' Where MsgID = 'ID of the message that SI/SD is processing'

Alternatively, SI/SD can update the field "StatusID" after processing the message

Update Inbox Set StatusID = 'Processed' Where MsgID = 'ID of the message that SI/SD is processing'

OUTBOX TABLE

To send out SMS, SI/SD's application inserts a new record into "Outbox" table.

To send out SMS

Insert into Outbox (Message, Mobile, DateTimeQueue, Status) values

('Hello!', '0163311600', mm/dd/yyyy hh:mm am, 'P')

NOTE: The SMS Engine will send out SMS if the date and time of the message is current (or earlier than current time) and the status is 'P'.

Field name	Data Type	Description	Remarks for System Integrator
MsgID	Long	Outgoing SMS unique identifier key.	Auto number. Reserved. Do not modified.
MsgRef	Integer	Message reference given by the SMSC	Reserved. Do not modified.
ModemID	Text (5)	Modem that sends out SMS.	Reserved. Do not modified.
Message	Text (255)	Outgoing message. Maximum of 160 characters.	Value required to send out SMS.
Mobile	Text (50)	Recipient's mobile number	Value required to send out SMS.
DateTimeQueue	Date/Time	Date and time of outgoing SMS queued to be send. Format should be mm/dd/yyyy hh:mm am	Value required to send out SMS.
DateTimeSent	Date/Time	Date and time of outgoing SMS being sent.	Reserved. Do not modified.
SentStatus	Text (1)	Status of outgoing SMS 'S' – Sent 'R' – Retry 'P' - Pending	Reserved. Do not modified.
DateTimeDevlier	Date/Time	Date and time of outgoing SMS being delivered to recipient.	
DeliveryStatus	Text (1)	'D' – delivered 'F' – fail to deliver 'U' – unknown status	Reserved. Do not modified.
Lock	Yes/No	Record is locked while being processed.	Reserved. Do not modified.

WARNING: All fields are reserved. System integrator cannot rename nor delete the fields or else the SMS Engine will malfunction.

Green coloured field: System integrator can change the field value (but not the the field name)

TERMS AND CONDITIONS OF SUPPORT

1. All GSM modems purchased from us comes with free e-mail support during warranty period (12 or 3 months).
2. We support matters related to modem, and the SMS Gateway Development Kit .
3. Support does not cover technical issues such as programming (e.g. how do I write a VB programme to send out SMS) and integration (e.g. how do I write a VB programme that talks to a database).
4. Response time to your e-mail is within 3 working days (subject to operating hours, public holidays, trainings). If you require telephone support, on-site support, and immediate response time, please write to us to obtain a quote of "Premium Support Plan".
5. All e-mail must contain the following information:
 - a) Company name
 - b) Invoice number (can also be obtained from the white label located at the back of the modem)
 - c) Description of problem (if available, attach with log file, scree capture, etc.)Send it to support2007@mobitek.com.my
6. If the modem that you had purchased is more than 12 or 3 months, please sign-up for our "Annual Support Programme" to extend the support period for another 12 months. For more information, please visit our web site: http://www.mobitek.com.my/SMSGDK/Annual_Support_Programme.html

APPENDIX 1 – LINUX AND PHP

SMS Engine Basic Edition requires *Windows* OS. The recommended system architecture for *Linux and PHP*, as follows:-

- set up a Windows PC connected to your Linux machine via LAN or TCP/IP
- install **SMS Engine Basic Edition** on Windows PC
- on Linux PC, configure **ODBC Data Source Name (DSN)** that connects to the SMS Engine database, *SMSEngine5.mdb*, on the Windows PC
- on Linux PC, the PHP code will be:

```
<?php
$conn=odbc_connect(DSN, '', '');
if (!$conn)
    {exit("Connection Failed: " . $conn);}

//to send out SMS, the SQL command is
$sql="INSERT ....";

//or to read SMS, the SQL command is
$sql="SELECT ....";

$rs=odbc_exec($conn,$sql);
odbc_close($conn);
?>
```