

# SMS Engine version 3

**MOBITEK - SMS Gateway Development Kit**  
**Manual for System Integrator & Software Developer**

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### **REVISION HISTORY**

<b>EDITION</b>	<b>ISSUED DATE</b>	<b>REMARK</b>
1 <sup>st</sup>	28th of April, 2006	Draft release
2 <sup>nd</sup>	22 <sup>nd</sup> of July, 2006	Date, time of message received by SMSC
3 <sup>rd</sup>	11 <sup>th</sup> of October, 2006	Release version 3.6
4 <sup>th</sup>	8 <sup>th</sup> of December, 2006	System Requirement, Linux and PHP
5 <sup>th</sup>	13 <sup>th</sup> of December, 2006	Release version 3.9

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## MOBITEK - SMS Gateway Development Kit

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## 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.

With MOBITEK SMS Engine, system integrator and software developer (SI/SD) do not need to write any code to build a SMS Gateway. The SMS Engine will read and send SMS, using MS Access database to store incoming SMS, and to check if there is any pending SMS to be send. The SMS Engine can be configured via Windows interface. SI/SD only needs to insert values into database to send out SMS, and retrieve values from database to read SMS. The SMS Engine has taken care all SMS transactions.

## PRE-REQUISITE

In order to use this SMS engine, SI/SD must have knowledge in database programming such as ODBC, JDBC, ADO etc. MOBITEK does not provide any support nor training in database programming.

SI/SD can use ODBC, OLE DB, or JDBC to connect to "**SMSEngine3.mdb**", the database used by SMS Engine.

## SYSTEM REQUIREMENT

Operating System: Windows 98, Windows NT, Windows 2000, Windows XP Service Pack 2, Windows 2003  
**Important: For machine running on Windows XP Service Pack 1, please upgrade to Service Pack 2**  
OS not supported: Windows ME, Windows XP Service Pack 1, Linux

## FEATURES of SMS ENGINE

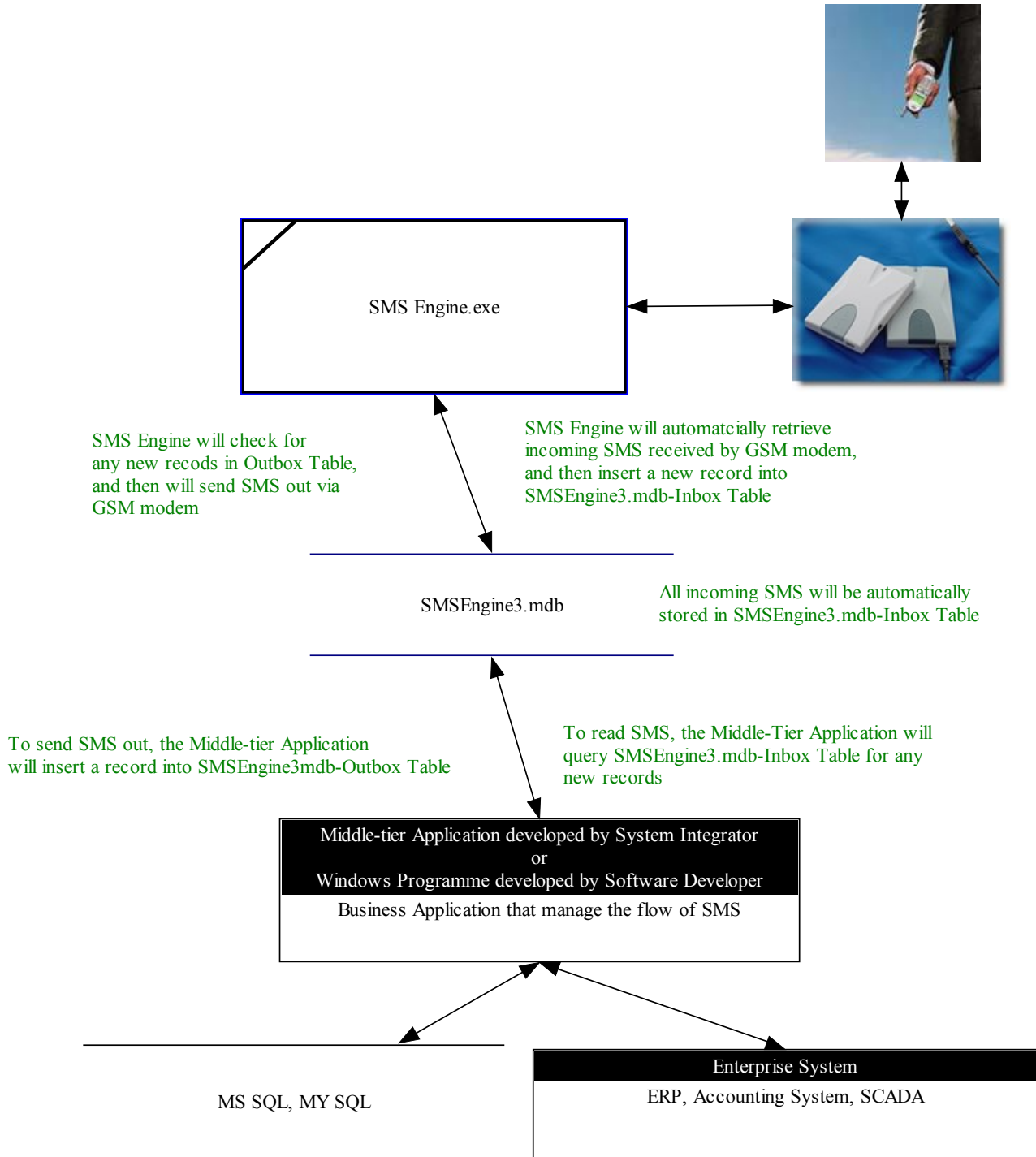
1. **Rapid Development:** no need to waste time in developing a programme to handle incoming and outgoing SMS. Install the SMS Engine, and make connection to the database – "**SMSEngine3.mdb**".
2. **SIM Unlock:** enter the PIN, and the SMS Engine will unlock the SIM card.
3. **Polling:** set the frequency 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.

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### PROCESS FLOW OF SMS ENGINE



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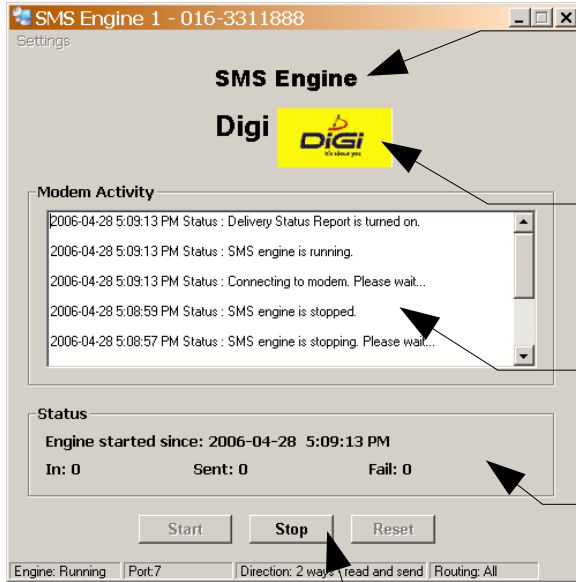
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### MAIN INTERFACE



**Re branding:** System Integrator / Software Developer can re brand "SMS Engine" to "MY SMS Engine" by editing the file "Setting.ini"

**Network Operator:** SMS Engine will display the logo of network operator depending on the number

**Real Time:** the modem activity is displayed in real time with the latest status at the top

**Status:** the status of SMS Engine

**Start / Stop:** to start the SMS Engine, click the "Start" button, to stop, click the "Stop" button to reset all SMS counters to zero, click the "Reset"

**Setting:** the SMS Engine setting is displayed here

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## GSM MODEM SETTING

SI/SD could use the GSM Modem Setting form (as shown below) to change the setting.

The screenshot shows the 'GSM Modem Setting' dialog box with the following fields and options:

- SIM Setting:** SIM Card No. (017-3311888), PIN (empty).
- Modem:** COM Port (7), Poll (5 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.

### SIM Setting

**SIM Card no:** also known as MSISDN  
**PIN:** to unlock SIM

### 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 check the appropriate box to instruct SMS Engine to send out SMS to 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

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### DATABASE STRUCTURE

**Database name:** SMSEngine3.mdb

**Tables:**

- Inbox
- Outbox
- Modem

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

**Inbox Table:** SMS Engine stores incoming SMS

**Outbox Table:** SMS Engine will retrieve records and send out SMS

**Modem Table:** Do not modified directly or else SMS Engine will malfunction. Use the interface to configure the modem

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### 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 <b>NOT</b> the date, and time of the PC.	Reserved. Do not modified.
Modem	Text (50)	Modem that receives incoming SMS.	Reserved. Do not modified.

**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)**

SQL Example:

- 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'**

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## OUTBOX TABLE

To send out SMS, SI/SD's application inserts a new record with the following SQL statement:

**Insert into Outbox (Message, Mobile, DateTimeQueue, Status) values ('Hello!', '0163311600', mm/dd/yyyy hh:mm am, 'P')**

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 <b>mm/dd/yyyy hh:mm am</b>	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.

**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)**

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## MODEM TABLE

Do not modified any thing in the Modem Table directly or else SMS Engine will malfunction. Use the interface, as shown below, to configure the modem.

**GSM Modem Setting**

**SIM Setting**

SIM Card No.  PIN

**Modem**

COM Port  Poll  seconds

Delivery Status Report

**Routing**

All  Celcom (019)  
 Maxis (012)  TMtouch (013)  
 DiGi (016)  TimeCel (017)

**Direction**

2 way  
 1 way- Read SMS  
 1 way- Send SMS

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## **SUPPORT**

All GSM modems purchased from us comes with free 12 months e-mail support with the following terms and conditions:

1. We support matters related to modem and SMS Engine's features (as mentioned in page 2) only.
2. Support does not cover technical issues such as programming (e.g. how do I write a VB programme to send out SMS) and integration with the SMS Engine's database.

All e-mail must contain the following information:

- Company name
- Invoice number
- Description of problem

and send it to

[support@mobitek.com.my](mailto:support@mobitek.com.my)

We shall response within 3 working days.

A service fee is chargeable on the following conditions:

- If technical support or integration support is required; or
- after 12 months.

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### APPENDIX 1 – LINUX AND PHP

**SMS Engine version 3** 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** version 3 on Windows PC
- on Linux PC, configure **ODBC Data Source Name (DSN)** that connects to the SMS Engine database, *SMSEngine3.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);
?>
```