Guide for SQL developers

This paper provides information for software developers about how to configure an SQL-SMS connection in the Ozeki NG Gateway to send and receive SMS messages using a database server (All major database servers are supported: Oracle, MSSQL, MySQL, Sybase, Informatix, etc.)

If you set up this functionality, you will be able to send an SMS message by simply executing an SQL Insert statement in your database server. This paper gives you all the necessary information to achieve this.

You can learn how to add an SQL user in the configuration file and how to configure sending and receiving. We also provide links to explanations of different database server connection settings.

The Ozeki NG SMS Gateway supports database connectivity. Database connectivity allows you to send or receive SMS messages using simple SQL queries. The way this works is illustrated in Figure 1.
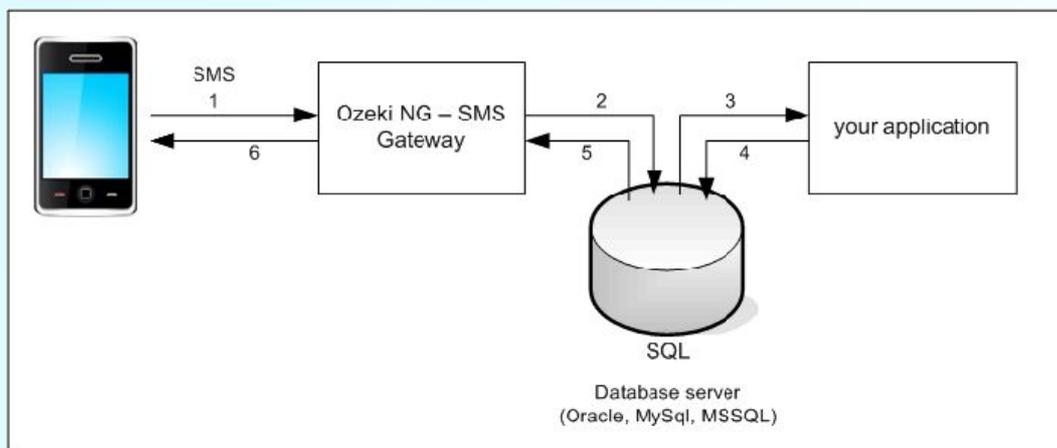

Figure 1 - SMS SQL messaging using a database server

Why do you need an SMS database?

Organizations use SMS databases for various purposes, primarily in relation to marketing, automated notifications or timed SMS:

SMS marketing campaigns: Businesses collect recipient phone numbers in SMS databases and send customized messages, targeted promotional offers, updates and reminders directly to their customers' phones. This allows for higher engagement compared to other channels, as most people keep their phones nearby and open the most text messages.

Customer Service: SMS databases can be used for two-way communication, allowing businesses to send appointment confirmations, delivery updates, and respond to customer inquiries via text message. This provides a convenient and efficient way for customers to interact with the company. Increases customer satisfaction and loyalty.

How to setup SQL SMS solution?

If you want to send and receive SMS messages through a database server, you need an SQL type user in the OZEKI NG SMS Gateway. The SQL user is a virtual user in the SMS Gateway that can communicate with a specified SQL server.

The Ozeki NG SMS Gateway supports Oracle, MS SQL, MySql, Postgres, Sybase and any other relation database server that has an ADO or an ODBC driver. To add an SQL user, you have to configure database connectivity.

To do this, you need to specify the SQL user directives and include the insert scripts in the configuration file.

1.) Example of creating an SQL user

```
<USER>
 Username sql1
 Type SQL

 Database "Driver={MySQL ODBC 3.51
Driver};Server=localhost;Database=sms;User=root;Password=;Option=4"

  SQLSelect "select oz_ id,oz_receiver,oz_msg,oz_operator,oz_msgtype,oz_sender,oz_reference from
ozekimessageout where
 oz_status='send'"
 SQLUpdateDownloaded "update ozekimessageout set oz_ status='sent' where oz_ id in ($idsq)"
 SQLUpdateTransmitted "update ozekimessageout set
 oz_ status='transmitted',oz_senttime='$senttime',oz_reference='$reference' where oz_i d='$id'"
 SQLUpdateDelivered "update ozekimessageout set oz_status='received', oz_receivedtime='$receivedtime'

 where oz_ reference='$reference'"
 SQLUpdateNotSent "update ozekimessageout set oz_ status='deleted',oz_errormsg='$errormsg' where oz_
id='$id'"
 SQLInsert "insert into ozekimessagein
(oz_operator,oz_sender,oz_receiver,oz_msg,oz_senttime,oz_receivedtime,oz_msgtype)
 values ('$operator','$sender','$receiver','$msg','$senttime','$receivedtime','$type')"
 SQLValueReplaceFrom1 '
 SQLValueReplaceTo1 ''
 SQLValueReplaceFrom2 "
 SQLValueReplaceTo2 ""
 Pollinterval 10
 DateFormat yyyy-mm-dd hh:nn:ss
 LogMessages On
 LogSelects On
 LogUpdates On
</USER>
```

Please visit the original code on the website:

https://ozekisms.com/p_2164-send-and-receive-sms-messages-from-a-database-application.html

How to setup SQL SMS solution?

2.) SQL user directives

Username

The username is a unique text, so you cannot use the same username for two users.

Username <text>

Password

The password of the users is an unencrypted password text. You should use a plain text password, as encrypted

passwords will not work. You ought to use at least 8 characters including characters representing a combination

of numbers and letters (both uppercase and lowercase).

Password <text>

Type

The type defines the user and its connection type: SQL

Type SQL

Database

It is the database connection string which describes the data source.

Database <text>

SQLSelect

The SQLSelect template describes the way of selecting outgoing messages.

SQLSelect "select id,receiver,msg,operator,msgtype,sender,reference from ozekimessageout where

status='send'"

SQLUpdate

The Update Downloaded SQL template describes the way of marking outgoing messages as sent messages.

SQLUpdateDownloaded "update ozekimessageout set status='sent' where id in ($idsq)"

2.) SQL user directives (continue I.)

SQLUpdateTransmitted

The SQLUpdateTransmitted template describes the way of marking sent messages as transmitted messages.

SQLUpdateTransmitted "update ozekimessageout set

status='transmitted',senttime='$senttime',reference='$reference'

 where d='$id'"

SQLUpdateDelivered

The SQLUpdateDelivered template describes the way of marking transmitted messages as delivered messages.

SQLUpdateDelivered "update ozekimessageout set status='received',receivedtime='$receivedtime' where

reference='$reference'"

SQLUpdateNotSent

The SQLUpdateNotSent template describes the way of marking sent messages as not sent messages.

SQLUpdateNotSent "update ozekimessageout set status='deleted',errormsg='$errormsg' where id='$id'"

SQLInsert

The SQLinsert template describes the way of inserting messages.

SQLInsert "insert into ozekimessagein (operator,sender,receiver,msg,senttime,receivedtime,msgtype)

 values ('$operator','$sender','$receiver','$msg','$senttime','$receivedtime','$type')"

SQLValueReplaceFrom1

The SQLValueReplaceFrom1 describes what to replace.

SQLValueReplaceFrom1 <text> Default '

SQLValueReplaceTo1

The SQLValueReplaceTo1 describes what to replace with.

SQLValueReplaceTo1 <text> Default ''

How to setup SQL SMS solution?

2.) SQL user directives (continue II.)

SQLValueReplaceFrom2

The SQLValueReplaceFrom2 describes what to replace.

SQLValueReplaceFrom2 <text> Default "

SQLValueReplaceTo2

The SQLValueReplaceTo2 describes what to replace with.

SQLValueReplaceTo2 <text> Default ""

Pollinterval

The poll interval defines the periodic SQL message fetching in seconds.

Pollinterval <integer> Default 10

DateFormat

The DateFormat directive defines the date representation.

DateFormat yyyy-mm-dd hh:nn:ss

LogMessages

The LogMessages directive allows you to log message traffic.

LogMessages On

LogSelects

The LogSelects allows you to log all SQL selects.

LogSelects On

LogUpdates

The LogUpdates directive allows you to log all SQL updates.

LogUpdates On

How to setup SQL SMS solution?

3.) SQL Insert scripts and database connection strings for various database engines

Every SQL user account means a database connection between the Ozeki NG - SMS Gateway and the database server.

We explain the following database server connections:

3.1) MySQL

The MySQL to SMS Gateway configuration page includes instructional videos for configuration assistance to create high capacity sms systems. The MySQL create table scripts that store outgoing and incoming SMS messages will be provided along with the configuration steps.

3.2) MS SQL

This is a brief outline of how this solution is expected to work. Learn the process of sending and receiving SMS messages with the help of the Microsoft SQL database server. If you require assistance to set up bulk sms messaging solution, watch the videos.

3.3) ORACLE

Sending and receiving SMS messages is possible with the Oracle database from Ozeki NG SMS Gateway. You have the option to utilize your SMS marketing database or implement an automated SMS solution. This web page contains Oracle SMS messaging specific information. You can also find SMS messaging system installation videos on this site.

3.4) Sybase / SQLAnywhere

The Ozeki NG - SMS Gateway software is compatible with the Sybase SQL Anywhere database for creating automated SMS messaging in businesses. You will be provided with the SQL connection string and the create table script for outgoing and incoming SMS messages.

3.5) PostgreSQL

PostgreSQL is an excellent database for sending and receiving SMS messages. It can be used in various environments. By connecting this database to the Ozeki SMS gateway, you can create a robust SMS marketing system.