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2 CHANGE HISTORY

Version	Date	Section	Changes to Documentation
1.05	15 April 2005	12.3	Corrected API Example diagram

3 OVERVIEW

This technical document is intended for users who wish to implement Two-Way Messaging within United States. All Two-Way messaging in the US must be implemented through the use of five (5) digit Shortcodes. This document is applicable to US Premium Rate (MO) Messaging.

It states what numbers types are available for Two-Way Messaging, gives an. An explanation of how inbound and outbound messaging works is given, and also explains how the API you have chosen needs to be configured to enable Premium Rated Messaging.

4 CONTEXT

This document is designed to follow on from ClickSMS’s HTTP, SMTP, FTP, XML, SMPP and COM API Specification documents. It is presumed that the reader has a thorough understanding of these documents (whichever may be appropriate) prior to reading this addendum. These documents are linked from:

<http://www.clickSMS.info/en/gateway.php>

As you will need to configure your numbers within ClickSMS Central, it is suggested that you read the online help on configuring Two-Way Messaging within ClickSMS Central first.

5 INTRODUCTION

There are various applications and services that are associated with Premium Rated messaging. ClickSMS's role in this regard is to act as a conduit between the mobile user and your application. We will also route any responses from your application back to mobile recipients and vice versa. There is a predefined set of variables that ClickSMS will pass back to your application when a message is received. You will need to ensure that your application is capable of interpreting these and responding accordingly.

6 DEFINITIONS

MO: Mobile Originated Message, a single message sent from a mobile handset to an Application via ClickSMS.

MT: Mobile Terminated Message, any message sent from an Application to a mobile handset via ClickSMS's gateway.

Bi-Directional Messaging: A series of messages sent between an Application and a mobile handset.

Premium Rated Message: A mobile originated message charged to the mobile user at a rate higher than the user's standard SMS message cost.

Revenue Share: This refers to the portion of the increased cost associated with a Premium Rated message, which is passed on to the content provider.

Content Provider: This is the ClickSMS Client offering service(s) based on a premium rated SMS system.

Clients: Registered ClickSMS Clients utilising the ClickSMS API for message delivery and receipt.

Recipients: Recipients of messages - typically mobile handset users.

Originator: Originator of a message - may be the handset user, or your application. Within this document the Originator will be interpreted as the mobile handset user, unless otherwise indicated.

Sender ID: The "from" address that appears on the user's handset. Also known as the Originating Number, MSISDN or Originator ID

Destination Address: This is the number to which the Mobile user sent the message.

Source Address: The Mobile User's handset number.

Conversation: Any series of messages sent between your application and a mobile handset.

MSISDN: Originating Number associated with an SMS message. This is also referred to as the Sender ID or Originator ID.

Shortcode: A short number which is common across all the operators for a specific region.

7 AVAILABLE SHORTCODES

Only dedicated Shortcodes are available in the US. A Shortcode may be linked to any price band. You may either choose to have a Shortcode number randomly assigned to you or you may choose a specific Shortcode number if available.

These are known as:

- **Random**: A random Shortcode assigned to you; e.g. 76432
- **Selected**: A specific Shortcode requested by you if available; e.g. 33333

Note: A Selected Shortcode incurs higher setup fees.

8 HOW OUTBOUND MESSAGING WORKS

These are messages delivered by your application to the user via the ClickSMS Gateway. There are a number of ways of routing these messages to the ClickSMS Gateway for delivery:

- SMTP (E-MAIL to SMS) - enabling a server or client-generated e-mail to be delivered as an SMS.
- HTTP/S - submitting either a POST or GET to the API server.
- FTP Upload - uploading a text file to ClickSMS's FTP Server.
- COM Object - windows based application development.
- XML - XML wrapper over HTTP.
- SMPP - Short Message Peer to Peer (SMPP) protocol.

The API you choose to send these outbound messages must be linked by ClickSMS to the Premium Rated Number you use. This can be done within ClickSMS Central. Go to **Product Control, Two- Way Messaging**. Click **Edit** on the number you want to configure and choose the API you want to link it to from the drop down box provided.

Please review your chosen API Specification document for more information on how to implement outbound messaging.

9 HOW INBOUND MESSAGING WORKS

Inbound messages to your application can arise in two ways:

9.1 METHOD 1: THE MOBILE USER INITIATES THE CONVERSATION

A mobile handset user will create and send a text message to your Shortcode number, which will be routed to your application by ClickSMS.

Example: a Mobile User sees an advertisement on TV stating that they should send an SMS to the number 36000 to stand a chance of winning a prize. They then send an SMS to 36000.

9.2 METHOD 2: YOUR APPLICATION INITIATES THE CONVERSATION

Your application sends a message via the ClickSMS Gateway to the user with the Sender ID set to your assigned Shortcode. The user then replies to the message which is routed back to your application via the ClickSMS Gateway.

For this, ClickSMS will route your messages through a specific carrier that will enable the ability for mobile users to reply to your allocated number.

Example: You send out a message to your users who have already opted-in to receive your service. It states "Reply now with the word NEWS to receive the latest news". The user replies to the message with the word "NEWS" and gets sent an SMS with the latest news.

10 HOW TO CONFIGURE YOUR APPLICATION

NB: It is assumed that you have already integrated your chosen API and are able to send messages.

10.1 HOW TO SET THE MO PARAMETER

When sending messages to mobile users that should be able to reply, the MO parameter must be set to 1. If you use SMPP the MO parameter is automatically set to 1. For more information on how to set this for your chosen API, see the API specification document.

When this parameter is set to 1 ClickSMS will:

- Use a specific carrier to deliver the message.
- Set the correct Sender ID when sending to the handset.

10.2 HOW TO CONFIGURE THE SENDER ID

Please note that when you send a message where you may need a reply, you will need to set the correct Sender ID (pre-configured Shortcode) and set the MO parameter to 1. The pre-configured Shortcode is the number that you have chosen to link to the API that you use to send outbound (MT) messages.

If the MO parameter is set to 1 and you specify a Sender ID that is different from the pre-configured Sender ID, then your setting will take preference. ClickSMS will still use a specific carrier to try and enable the ability for the user to reply to the message. If however, your Sender ID is not supported by the carrier being used, the message will fail.

When ClickSMS delivers the message the Sender ID may be changed as follows.

Your Sender ID	Sender ID set by ClickSMS	
	If MO=1	If MO=0 or not set
If you set an alpha Sender ID (e.g. from=abc)	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS number.	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS number.
If you set a numeric Sender ID that is not a configured MO number.	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS number.	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS number.
If you set a configured MO number.	We will try to set the Sender ID you submitted.	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS Number.
If you set a Shortcode as the Sender ID field.	We will set the Sender ID you submitted.	We will try to set the Sender ID you submitted. If we cannot, we will set a default ClickSMS Number.
If you do not set anything as the Sender ID field.	We will look up the correct Shortcode on your api_id and set the correct number. If you have more than one MO number on the same api_id, we will set a default ClickSMS number - you will not receive the replies.	We will set a default ClickSMS Number.

10.3 HOW TO RECEIVE INBOUND MESSAGES

In order to receive inbound messages, one of the methods below can be used. You can change which method you wish to use at any time. Configuration is done through ClickSMS Central. Go to **Product Control**, choose **Two-Way Messaging** and select the number you wish to configure.

- Callback URL
- FTP Logfile
- SMPP
- Online Report Only

Note: All inbound messages are recorded on your ClickSMS account, which can be viewed and downloaded through **Reports** within ClickSMS Central. This is useful if you do not wish to receive inbound messages into your application.

10.3.1 Callback URL

Callback URL's will be used to post messages back to applications via a standard HTTP GET. The reply-path URL is set by you within ClickSMS Central, and will be requested of the Client when MO is activated on their account. The URL must begin with http://. HTTPS is not accepted. Variables are passed back by the API on message response.

The variables returned to the URL are:

- Api_id (api_id=)
- Originating ISDN (from=)
- Destination ISDN (to=)
- Date and Time [MySQL format, GMT + 0200] (timestamp=)
- DCS Character Coding (charset=) [when applicable]
- Header Data [e.g. UDH etc.] (udh=) [when applicable]
- Message Data (text=)

Example: If you provide this: <http://www.yourdomain.com/sms/sms.asp> then we will do a post via a standard HTTP GET as follow:
http://www.yourdomain.com/sms/sms.asp?api_id=xxx&from=xxx&to=mo_number_here×tamp=2005-01-06+12:32:10&text=xxx&charset=ISO-8859-1&udh=

What happens when we are unable to connect to your server?

ClickSMS did not previously offer retries on MO messages. With our new service, we now offer retries of MO callbacks. We follow this process:

1. 2 minute after the original attempt
2. 4 minutes after last retry
3. 8 minutes after last retry
4. 16 minutes after last retry
5. 25 minutes after last retry (max retries reached)

After this, we do not retry again.

10.3.2 FTP log file

As an alternative to using a callback URL, replies can be logged to an FTP file. The FTP file will be a text file, which can be retrieved manually, or via a script. If you don't already have an FTP account you may request that an FTP account be set up for this purpose. The fields in the text file will match those listed above. If necessary, an example of a text file will be provided on request.

Text file name: mo.log
Example of text within text-file:
2005-01-06[tab]12:26:18[tab]handset_number_here[tab]mo_number_here[tab]text_here
2005-01-06[tab]12:27:18[tab]handset_number_here[tab]mo_number_here[tab]text_here2
2005-01-06[tab]12:28:18[tab]handset_number_here[tab]mo_number_here[tab]text_here3

10.3.3 SMPP (for advanced users)

We can also send the response back to you via SMPP. Please see our SMPP API specification document for more information.

10.3.4 Online Reports Only

All inbound messages are recorded on your ClickSMS account, which can be viewed and downloaded through **Reports** within ClickSMS Central. Choose this option if you do not wish inbound messages to be sent to your application.

10.4 IMPORTANT NOTICE ABOUT TESTING:

Do not try and send to your Shortcode via ClickSMS's system. This will cause your messages to go into a loop. The Shortcode should only be used to receive incoming messages.

11 HOW BILLING WORKS

We automatically deduct the credit charge for each inbound message. Please contact your sales consultant if you are unclear about the charge you pay. The standard charge for our Shortcodes is a third of a credit, per inbound message. These credits are deducted from your MO balance. Please note that your MO balance is separate from your normal messaging account (MT balance). Your MO balance will be allowed to go below zero during the course of the monthly billing cycle. At the end of the month your outstanding MO balance will be deducted from you MT account. We will notify you one week in advance of you MO balance.

Note: In the near future there will only be one balance for both MT and MO credits.

12 EXAMPLES

12.1 READ FIRST

The following is required for the examples below to work as shown

- The MO parameter is set to 1
- You have configured how ClickSMS must send messages to you (through ClickSMS Central)

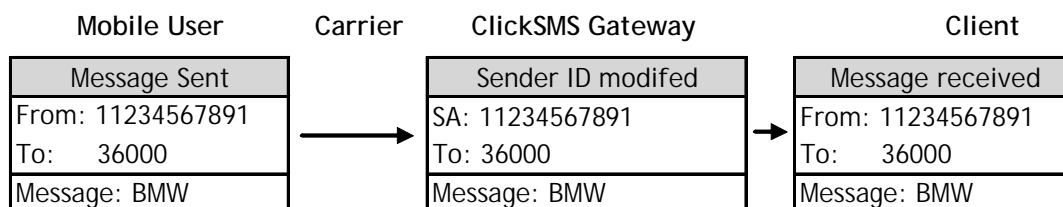
Definitions:

- "Mobile User" is interchangeable with the word "handset".
- A "client" is a client of ClickSMS's.
- SA = Source Address, the handset/mobile number the message comes from.

In this example the Shortcode "3600" has been setup as a Premium Rated number. This number could however have been setup as a standard rated number. The examples apply to both scenarios

12.2 EXAMPLE 1: MOBILE USERS SMS IN TO A SHORTCODE TO ENTER A COMPETITION

In this example the mobile user sees an advertisement in a newspaper that states "SMS 36000 starting with the word BMW to win a new BMW. \$2.50 per SMS". The mobile user sends the requested word via SMS to 36000. The message is received from the handset by the ClickSMS Gateway (via the Network Operator) and delivered to the application.



12.3 EXAMPLE 2: MOBILE USERS REPLY TO A MESSAGE YOU HAVE SENT THEM

In this example you send out a message to an opt-in user "Reply to this message in order to win a new BMW. Start with the word BMW. \$2.50 per SMS". The user then replies to the message and is billed at a premium rate.

