SMS 2 HTTP

User Manual

This document is aimed at:

Grapevine Affiliate administrators and users who have been provisioned to use SMS 2 HTTP.

Version

2.1

Date

23 April 2010

Support

For assistance, please contact Grapevine: +27 21 702-3333 or email info@vine.co.za.

Feedback

Was this document useful? What can we do to make this user guide more useful and informative? Please email info@vine.co.za with your comments and feedback.

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Abbreviations

CSV	Comma Separated Values
GVI	Grapevine Interactive
HTTP	Hypertext Transfer Protocol
SMPP	Short Message Peer-to-Peer Protocol
SMS	Short Message Service
URL	Universal Resource Locator

Definitions

Affiliate	Company that is registered with Grapevine and has been provisioned to use one or more of its products or services.
Broadcast	In SMS-2-HTTP, a broadcast is a collection of messages sent out by an Affiliate to mobile phone users and the responses received by an Affiliate from mobile phone users.
Campaign	In SMS-2-HTTP, a campaign is a collection of messages sent out by an Affiliate to mobile phone users and the responses received by an Affiliate from mobile phone users.
CDATA	The term CDATA is used to indicate text that should not be parsed (interpreted) by the XML parser, for instance, characters like "<" and "&".

1.   Introduction

1.1.   What is the purpose of this manual?

The purpose of this manual is to document:

- SMS-2-HTTP's web-based front-end which is used to view reports about SMS-2-HTTP campaigns
- the XML used by Affiliates to perform HTTP posts to SMS-2-HTTP

1.2.   Introduction to SMS-2-HTTP

1.2.1.   What is it?

SMS-2-HTTP is a web-based service that enables you to route SMS messages from customers to your company via Grapevine using XML over HTTP. You can then use your own application to extract and process the content of the SMS message.

1.2.2.   Why use it?

Gathering information in large companies can be time consuming and costly, and effective marketing and research campaigns can end up being labour-intensive. With SMS-2-HTTP you can automatically gather information from customers via SMS and then extract, process, analyse and store it using your own applications.

You can use SMS-2-HTTP for a variety of applications, for instance: voting, competition entries, surveys, account notifications, support queries and promotions. SMS-2-HTTP is an effective way of coordinating the benefits of super fast, easy-to-use mobile communication with in-house applications.

1.2.3.   How does it work?

With SMS 2 HTTP, your company gets a dedicated short code, e.g. '34766', to which SMS messages can be sent. This code can then be advertised along with a service or promotion to which you want customers to respond by SMS.

You can select whether you want clients to send their SMS messages to a premium-rated short code or to a standard-rated long code. If you select a premium-rated short code, you earn revenue share on the service usage. Messages are sent to your server via an HTTP Post using Grapevine's SMS-2-HTTP application.

1.2.4.   Features

- Reliable SMS-2-HTTP receiver
- Easy-to-use XML interface
- SMS concatenation

- Standard message format
- Automated data collection
- Short code revenue share
- Lower communication costs
- Multiple services from one short code

1.2.5. Replies

SMS-2-HTTP cannot send replies to a mobile phone. If you need a reply service, ask our support desk about the SMS Applink service. SMS AppLink is a Grapevine Interactive product that enables the transmission of SMS messages via secure HTTPS. Applications can post messages to SMS AppLink, and receive receipts and replies via a call-back POST. In this way, you can extract mobile numbers from the XML sent to you by SMS-2-HTTP and respond via AppLink.

1.2.6. Process diagram

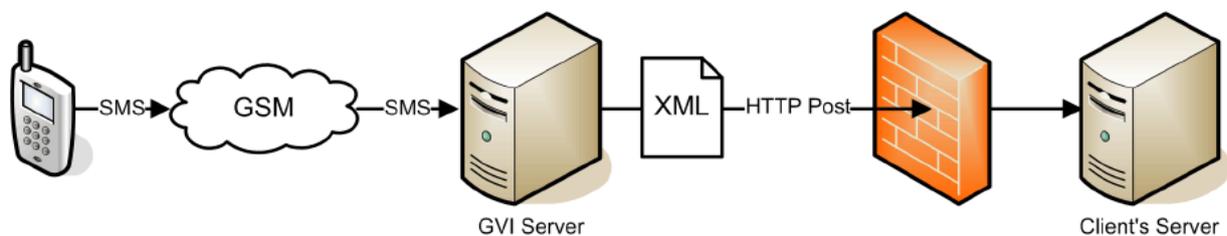An overview of the SMS-2-HTTP process flow is shown in the figure below:

Figure 1 – SMS-2-HTTP process flow

2.   Getting started

To get started, you must be registered as a Grapevine Affiliate.

2.1.1. How do I register?

Contact Grapevine at info@vine.co.za. When you register as an Affiliate you must:

- specify the number to which people must send their SMSs. This can be a short code (premium-rated) or a long code with two extra digits (standard-rated)
- specify the URL on your server to which the SMS-2-HTTP service must post these messages
- code your web application to receive the SMSs at the URL that you specified when you registered (see 3 Conversion of SMS to XML)
- open your network's firewall to accept posts from the following IP addresses:
  - o   196.37.44.90
  - o   196.35.76.123

2.1.2. Where do I get my login information?

Grapevine will send you an email with the following user registration information:

- your username and password for the SMS-2-HTTP web application where you will view reports
- the URL for the SMS-2-HTTP web application
- confirmation of the short code you chose to which people must send their SMSs

You can log in to the SMS-2-HTTP web application using the username and password provided in the email.

Note: Click on the **Forgotten your password?** link to request a reminder of your login details. A reminder will be sent to the email account you used to register with SMS 2 HTTP.

3.   Conversion of SMS to XML

The SMS-2-HTTP service converts an SMS message to XML using Grapevine's gviSms standard. The gviSms standard is simply the format of the XML as it will arrive on your server, including the tags embedded in the XML and what they mean. For instance, the <smsLocation> tag indicates the short code to which a customer sent an SMS. This tag is included because you may have more than one campaign running and therefore may be using more than one short code.

See the example below of the XML as it will arrive on your server and the explanations of the tags. This XML is what you must code your web application to receive and process.

```
<?xml version="1.0" encoding="UTF-8"?>
<gviSms>
   <smsDateTime>2005-09-08T10:06:03</smsDateTime>
   <gatewayIdentifier>ThreeRandVodaRx1</gatewayIdentifier>
   <cellNumber>27827891099</cellNumber>
   <smsLocation>35444</smsLocation>
   <content><![CDATA[Lindiwe Sisulu, KZN]]></content>
</gviSms>
```

Tag	Description
gviSMS	The wrapper tag is mandatory. All other tags are enclosed in this tag.
smsDateTime	The date and time when the original SMS arrived at GVI's SMS gateway. This is not the time the SMS was sent by the customer. It may however give an indication of long the message took to be transmitted to your server.
gatewayIdentifier	Identifies the network and the rate of the SMS. Grapevine has a list of short code rates from which you can choose. In the example above you can see that the mobile phone number is a Vodacom number and therefore the network chosen will be for Vodacom. The rate in this example is R3; Cell C and MTN will also offer a R3 rate, e.g. ThreeRandCellCRx1.
cellNumber	The number (in international MSISDN format) of the mobile phone that sent the SMS.
smsLocation	The short code to which the SMS was sent.
content	The message text of the SMS message, e.g. 'Unsubscribe'.

Note: The content of multiple messages can be repeated by duplicating the tags sandwiched between the gviSMS tags.

4.   The SMS-2-HTTP Home page

Using the URL sent to you by Grapevine when you were provisioned on the system, log in to the SMS-2-HTTP application. Below is an illustration of a demo Affiliate's **Home** page.

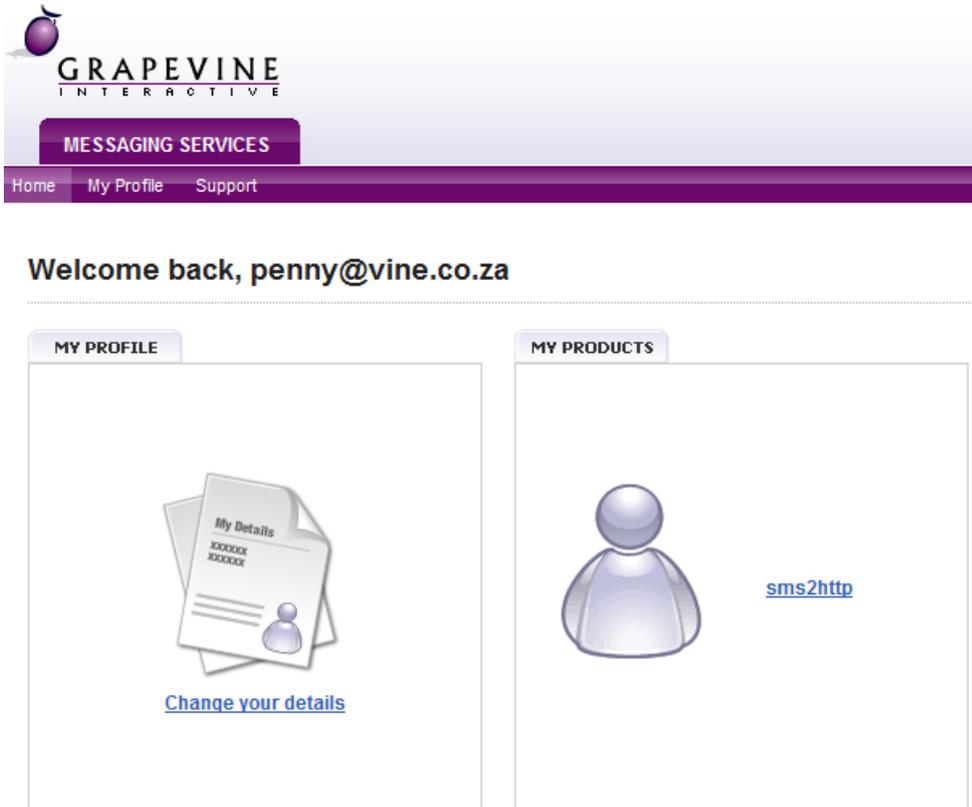⚠ Username and password are case sensitive.

Figure 2 – SMS-2-HTTP Home page

The SMS-2-HTTP **Home** page is a portal for the messaging services for which you are registered. On the **Home** page you have the options to:

- change your personal details,
- email Grapevine support with a query
- access SMS-2-HTTP reports

At the bottom of the **Home** page, you can see Grapevine's contact details.

What is a portal? A portal is a web site or web page that the owner positions as an entrance to other sites or pages on the internet, or other pages in a web application.

4.1.   How do I change my personal details

Tip: On your **My Profile** page you can change your password to something easier to remember than the password originally issued to you by Grapevine.

To change your personal details:

1. On the **Home** page, click **Change your details**.

Figure 3 – Change personal details

2. Under **My Profile**, enter your personal details.
3. Click **Update**. A message will be displayed saying your changes have been updated. To exit this page, click the **Back** button in your browser.

Tip: If you want to exit the page without saving your changes, hit the **Back** button in your browser instead of clicking **Update**.

4.2.   Sending Grapevine a support query

To email a support query to Grapevine:

- In the application, on the right side of the page, click the **Support** tab. From the **Home** page, on the purple **Menu** bar, click **Support**.

4.3.   How do I access SMS-2-HTTP reports?

To view SMS-2-HTTP reports:

1. On the **Home** page, click **SMS 2 HTTP**.
2. In the **VIEW REPORTS** tab, click **Inbound Message Report**.

Welcome back, penny@vine.co.za

VIEW REPORTS

■ Inbound Message Report

Figure 4 – Inbound Message Report

5.   Reporting and analysis

To get to this page, see 4.3 How do I access SMS-2-HTTP reports.

Reports are useful to monitor the success of campaigns and to troubleshoot errors. You can also use them to analyse campaigns by exporting the data to a spreadsheet application like Excel. SMS-2-Email allows you to filter data so you can report on specific campaigns, mobile numbers and short codes over a specific period of time.

To view a report:

1. On the **Home** page, click **SMS 2 HTTP**.
2. In the **VIEW REPORTS** tab, click **Inbound Message Report**.
3. On the **Inbound Message Reports** page, fill in the report parameters. You can filter your results to select all messages:

    o   sent to a particular short code
    o   sent to a specific MSISDN
    o   containing specific content
    o   sent between specific dates and times
4. Click **Run Report**.
5. After running the report, you can export the results to an Excel spreadsheet to further analyse, sort and filter Export to Excel .

Example: In the example below, we are searching for all messages sent this month containing the word 'subscribe' in the message body.

Inbound Message Report

Short Code:

[▼]

Mobile Number:

[   ] eg. 27821234567

Message Content:

subscribe

Select period:

○ Today   ● This month   ○ Last Month

○ Custom Date

Please define your date range with the following format: (**yyyy-mm-dd hh:mm**)

From: [2010] - [03] - [25]   [00] : [00]

To: [2010] - [03] - [25]   [08] : [50]

[Run Report]   [Clear]

Export to Excel

Figure 5 – Inbound Message Report search parameters

In the results below you can see all the messages containing the word 'subscribe' in the message body. In this example, the report extract shows all customers who un**subscribe**d this month. From the data you can see that customers have unsubscribed from different services as the short code is different. If customers had subscribed to the service in the specified time period, these messages would appear in this report as well.

#	Current Status Time:	Short Code:	Msisdn:	Message:
1	2010-02-23 14:57:26	31370	27735334293	Unsubscribe
2	2010-02-14 20:41:47	31222	27827777438	Unsubscribe.
3	2010-02-10 18:49:51	36771	27723077978	Unsubscribe
4	2010-02-02 17:23:26	31378	27834570151	Unsubscribe

Figure 6 – Inbound Message Report output

6. FAQs

6.1. Under which circumstances would the sent SMS create an error on GVI's server?

This could happen if the sender used a non-standard character in the SMS. In such cases, the SMS stops at the GVI server; it won't be posted to your web server. However, you will receive regular reports and statistics on the status of these messages so you can follow up on them.

6.2.   What are 'standard' characters?

GVI's server accepts the following characters in incoming SMS messages:

space	)	2	;	D	M	V		h	q	z
!	*	3	<	E	N	W	`	i	r	{
"	+	4	=	F	O	X	a	j	s	|
#	,	5	>	G	P	Y	b	k	t	}
$	-	6	?	H	Q	Z	c	l	u	~
%	.	7	@	I	R	[	d	m	v	
&	/	8	A	J	S	\	e	n	w	
'	0	9	B	K	T	]	f	o	x	
(	1	:	C	L	U	^	g	p	y	

Figure 7 – SMS-2-HTTP Home page

Support

If you need assistance, please ensure you have all the details of what you were doing in SMS-2-HTTP so that a support consultant can help you.

For assistance, please contact Grapevine: phone +27 21 702-3333 or email support@vine.co.za