textvertising

User Guide to
Inbound and Outbound
SMS & PSMS API Gateways
and
MMS Outbound Gateway

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Contents

Introduction.

Textvertising offer 3 gateways to integrate your product with our SMS and PSMS services.

1) Inbound SMS from shortcode and/or virtual mobile number posted to your application.
2) Outbound SMS to send either single or multiple messages (SMS).
3) Outbound SMS to send Premium Rate single messages (PSMS).

Integration may require some knowledge of basic programming but example working Perl scripts can be obtained if required.

API Integration.

An account with Textvertising is a requirement. Once created, you can take advantage of both inbound and outbound SMS via our easy to implement API.

Inbound SMS is only available on our virtual mobile number 07716 711 744 unless you upgrade your account to use the shortcode. The system works the same way in either case, except you will not be notified of the network. Outbound premium rate SMS (PSMS) alongside Standard SMS is optional and depends on your account settings.

Virtual Mobile Number Hosting.
If we are hosting a virtual mobile number on your behalf, the system will work in exactly the same way.

The following pages show how to integrate your platform with our SMS system via API.

Incoming and Outgoing SMS & PSMS Authentication.

Users are advised to lock their incoming scripts to traffic from these specific Textvertising Server IP addresses for additional security.

Depending on our traffic at any given time or the services used, any one of these servers can post inbound requests or PSMS delivery notifications to you:

62.7.92.120
62.7.92.121
62.7.92.122
62.7.92.123
195.188.59.180
195.188.59.190

Clients are reminded that when posting to our servers, repeated login failure will result in our gateway blocking your IP. Please ensure that your scripts are posting the correct details before starting testing with our API.

1) Standard (Non Premium Rate) OUTBOUND SMS.

Users should call a HTTP GET or use HTTP POST request to call the following script:

http://www.textvertising.co.uk/cgi-bin/smssend.pl

This API can accept both single and bulk messages. We recommend sending large numbers across as a bulk message rather than many single posts. HTTP GET has a limit on characters that can be submitted in the URL, and the URL is visible across the network. **We advise HTTP POST as a preferred method of submission for added security.**

The parameters required are shown below. The parameters must be sent in LOWERCASE only:

numbers	The number(s) that you wish to send an SMS to. Must start in UK "44" format, for example: 447777111177. If submitting multiple numbers to send the same message to, the numbers should be separated with an underscore "_" for example: 447777111177_447777111188
smsid	The sender ID (the ORIGINATOR of the message) that should show on the handset. This can be Alphanumerical or Numerical. If using Numerical and showing a valid mobile number, replies can be made to that mobile number, otherwise the end user will be unable to reply.
user	Your account Username/Keyword
pass	Your account Username/Password
reportx	OPTIONAL. Set this parameter to either XML or STD reports. If omitted STD will be used.
message	The body of the message up to 160 characters in length.
expiry	OPTIONAL. The expiry date of the message. If not used the last day of the current year is set as the default. This is for future use when the networks open up larger message holding. Message expiry is preset by the network to the same day.If undelivered by this time, the message will be discarded in the network. Use MMDD format – eg 1231 is the 31st December. The expiry can only specify the current year.
data	OPTIONAL. Can be used to create individually branded messages. By inserting the term [data] into your message, it can be replaced by the information passed in the elements of the data parameter. Each element should be separated by an underscore "_" – for example: John_ Paul_Dave. The elements should be passed in the same order as the applicable numbers
notify	OPTIONAL. This parameter if set to "no" will disable any report emails being sent for every submission made. For example use **report=no**

Example GET request to send the same message to two phones:

http://web.textvertising.co.uk/cgi-bin/smssend.pl?
numbers=44777777771_44777777772&user=yourusername&pass=yourpassword&message=test
message&report=xml&smsid=TestMe&expiry=1130&report=no

This will simply send "test message" to both phones.

Example GET request to send the same message to two phones but addressed to each differently:

http://web.textvertising.co.uk/cgi-bin/smssend.pl?
numbers=44777777771_44777777772_44777777772&user=yourusername&pass=yourpassword&message=Dear [data],
Test SMS&report=xml&smsid=TestMe&expiry=1130&data=Steve_Jason_Paul

This will send:

"Dear Steve, Test SMS" to 447777777771
"Dear Jason, Test SMS" to 447777777772
"Dear Paul, Test SMS" to 447777777773

Reports:

If accepted, and ID will be given in the format:
ACCEPTED xx-yyyy

xx is your batch ID to trace the history inside your account,
yy is our internal reference number for the message

If an error exists on submission, a alternative response will be given. For specific errors, please see ERROR CODES on page 17.

We recommend filtering the response for the word ACCEPTED as this means the submission was successful.

2) Premium Rate OUTBOUND SMS.

Outbound PSMS messages that you send are not stored within your account. When using our PSMS API, users are responsible for archiving the history or messages submitted and the IDs supplied in return of a successful submission.

Premium rate submissions require a matched number and network. **Users should not submit requests without a matched number and network.**

When utilising our INBOUND SMS API, any submissions made to 82055 will also include the network to enable you to reply with a PSMS reply.

TO SEND A REVERSE BILLED PREMIUM RATE MESSAGE A PERSON MUST SUBSCRIBE BY TEXTING YOUR KEYWORD TO 82055 FIRST OR THE SYSTEM WILL FORBID SENDING.

If you are using our virtual mobile number our API will submit an empty network parameter to your application. Virtual mobile numbers cannot be used with Premium rate services.

Users should call a HTTP GET or use HTTP POST request to call the following script. HTTP GET has a limit on characters that can be submitted in the URL, and the URL is visible across the network. **We advise HTTP POST as a preferred method of submission for added security.**

http://www.textvertising.co.uk/cgi-bin/psmssend.pl

This API only accepts single posts. We recommend running a maximum of 5 simultaneous threads for sending to this API for efficiency.

The parameters required are shown below. The parameters must be sent in LOWERCASE only:

number	The UK number to send the premium rate message to. Must be UK 44 format. Eg 447771111112. (Please omit the leading + symbol if applicable).
pamt	The charge that should be applied. 25p : set this parameter to 25 50p : set this parameter to 50 £1.00 : set this parameter to 100 £1.50 : set this parameter to 150 £3.00 : set this parameter to 300 £5.00 : set this parameter to 500 £10.00 : set this parameter to 1000
network	Set to match the network of the number submitted. Can be VODAFONEUK, TMOBILEUK, ORANGEUK, VIRGINUK, BTCELLNETUK, THREEUK, MANXUK, GUERNSEYUK or JERSEYUK. **DO NOT SUBMIT a request if the network is not known or your account may be barred!**
user	Your account username/keyword
pass	Your account password
message	The message to send – max 160 characters. Do not use New Line characters (ASCII 13) or it will be replaced with a space (ASCII 32)
notify	This is an optional parameter. The "notify" parameter should be the address that our server can post a delivery report to when it arrives from the network for that submission. If you use the notify parameter our server will send the following parameters to your server script address to help you validate the ID against your PSMS SEND logs: Cont...

id – the message id that was provided to you on submission.
number – the mobile number that was submitted.
result – the status of delivery to that number.

If omitted, or left blank, no report will be posted back. You can however request a report at any time by simply by doing a PSMS REPORT post using the ID which is displayed after a successful submission. See section (3).

Example GET request to send a PSMS message to a phone at 50p:

http://web.textvertising.co.uk/cgi-bin/psmssend.pl?number=44777777771&user=yourusername&pass=yourpassword&message=test message&pamt=50&network=VODAFONEUK

Example GET request to send a PSMS message to a phone and have the delivery report posted back to "www.myserver.com/reply.pl" using the "notify" parameter:

http://web.textvertising.co.uk/cgi-bin/psmssend.pl?number=44777777771&user=yourusername&pass=yourpassword&message=test message&pamt=50&network=VODAFONEUK&notify=http://www.myserver.com/reply.pl

Error reporting:

For filtering purposes, a fully numeric response indicate a valid submission.

If an error exists on submission, a response will be shown. If accepted, and ID will be given in the format 1234567890. (Please see ERROR CODES on page 17).

The submission number is your ID to trace for all delivery/billing reports and also for notifications of deliveries automatically posted back to you if requested using the notify parameter.

3) REQUESTING A PSMS DELIVERY REPORT ON AN PSMS SUBMISSION ID

You can enquire on the status of delivery and whether the end user was billed or not provided you have the billing amount that was used and the ID that was given after submission.

Users should call a HTTP GET or use HTTP POST request to call the following script:

http://www.textvertising.co.uk/cgi-bin/psmsreport.pl

id	The long numeric ID that was provided to you on submission of a PSMS SEND request.
pamt	The charge that was applied to the end user. 25p : set this parameter to 25 50p : set this parameter to 50 £1.00 : set this parameter to 100 £1.50 : set this parameter to 150 £5.00 : set this parameter to 500 £10.00 : set this parameter to 1000
report	Optional - Set to match the type of report you would like. Left blank – standard text/html report set to "xml" – XML style report
user	Your account username/keyword
pass	Your account password

Example GET request to request a PSMS delivery report:

http://web.textvertising.co.uk/cgi-bin/psmsreport.pl?
id=1234567890&user=yourusername&pass=yourpassword&report=xml&pamt=150

On Success, a report will be provided. Unless this result shows BUFFERED, the report is final and will either show either DELIVERED, REJECTED, FAILED or FORBIDDEN REVERSE BILLING.

FAILED indicates that the message was undeliverable and the end user has not been charged and you can retry sending the message again if you wish.

REJECTED indicates that the handset could not be charged. This is usually when either the handset blocks shortcodes or is out of credit.

FORBIDDEN REVERSE BILLING is a separate error that occurs. This normally occurs:
1) if you attempt to send to a handset that has not first subscribed by sending a subscription text to 82055
2) The number/handset is blocked by the network.
3) Too many requests have been made within a small period of time that is considered excessive by the Network.

NO REPORT or a blank response indicates that no report is yet available. The message/status is still within the SMSC and will appear sometime later.

Some reports can take up to 72 hours to appear.
This is because an undelivered message is queued for retry a short time later by the network. Deliveries are retried for up to 72 hours after which time FAILED will normally be the response if delivery did not happen. This will normally occur if you send a request to a handset which is switched off for an extended period of time. Normally this occurs with subscription services as you are sending the message to a phone which may be switched off.

Error reporting:

If an error exists on submission, a response will be shown. (Please see ERROR CODES on page 17). If accepted, a result will be given in the format ID STATUS DATE. The delimiter for your own records is a "space" – ID<space>STATUS etc.

4) INBOUND SMS

Users should develop their own application to accept a HTTP POST request from our servers.

To set up HTTP POST inside your account, select INBOUND SMS and then choose option 5 (HTTP POST).

At the next step, provide the full URL to your processing script including any port if required. Your script must exist before it will allow you to set it up and respond with a HTTP 200 status.

Finally test the connection and make changes if required. Once set up, your server should accept requests from our API successfully.

The parameters that will be submitted to you will be as follows:

|	
number	The number that made a request.
message	The message that was submitted.
	If using the virtual mobile number, inbound requests can be a maximum of 160 characters.
	If using a shortcode multiple message parts can be submitted and our system will re-assemble and submit the entire message to your system. This is provided that all parts are received or the message is locally discarded.
network	Will be VODAFONEUK, TMOBILEUK, ORANGEUK, VIRGINUK, BTCELLNETUK, THREEUK, MANXUK, GUERNSEYUK or JERSEYUK
	A network will only be included if using a shortcode number, not a virtual mobile number
keyword	The keyword that was used to trigger the request. If you have multiple keywords it will identify the request to you.
	If we have set up keyword pointing then your message body will be shifted right and the keyword used will be inserted.
	For example, assume you have the main keyword ABC and also a pointed keyword XYZ that we have added for you. If the end user submits ABC HELLO you will receive the keyword ABC and the message HELLO. If the end user submits XYZ HELLO you will receive the keyword ABC and the message XYZ HELLO. The first word of the message body helps you distinguish where it originated from by comparing it to your pointed keyword list.
time	The time of the received request in GMT (SQL/MySQL format YYYY-MM-DD HH:MM:SS)

Points to take note of:

When using the HTTP POST facility, our server sends the request directly to you and does not store any information inside your account.

Your server/script should respond in a timely fashion (sub 500ms). If it does not, or is unavailable, the request is lost.

Your server/script should also respond with a basic response like "OK" or "ACCEPTED" or you may experience problems setting up HTTP POST.

API Flowchart
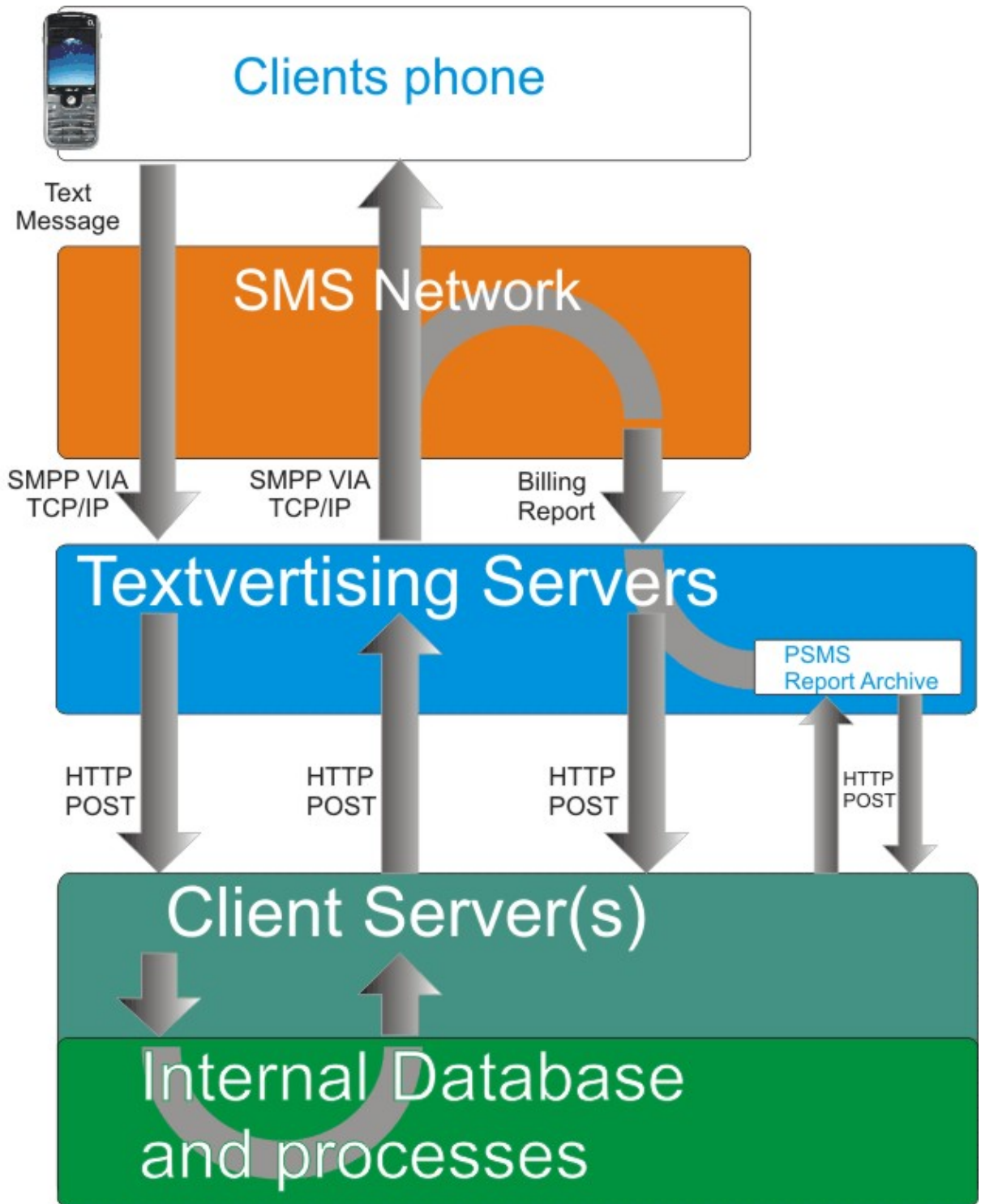
5) Outbound MMS

Outbound MMS can be initiated using HTTP post by submitting the following parameters.

| number	The number that you wish to send an MMS to.
user	Your account username/keyword
pass	Your account password
mms_url	The location of the MMS ZIP file on your server (in the format http://www.yourserver.com/mmsfiles/mms_filename.zip
ref	This parameter is optional. This should be a unique reference to store alongside the MMS log in your history. This can be a number or text. If omitted n/a will be used instead.

Users should submit the above parameters with valid information by HTTP POST to the following script:

http://www.textvertising.co.uk/cgi-bin/mmssend.pl

On successful receipt, you will receive a "MMS ACCEPTED: UNIQUE_NUMERIC_ID" result.

If unsuccessful, you will normally receive "MMS FAILED: PROBLEM_RESULT_AND_ID" result.

Compilation of MMS ZIP files.
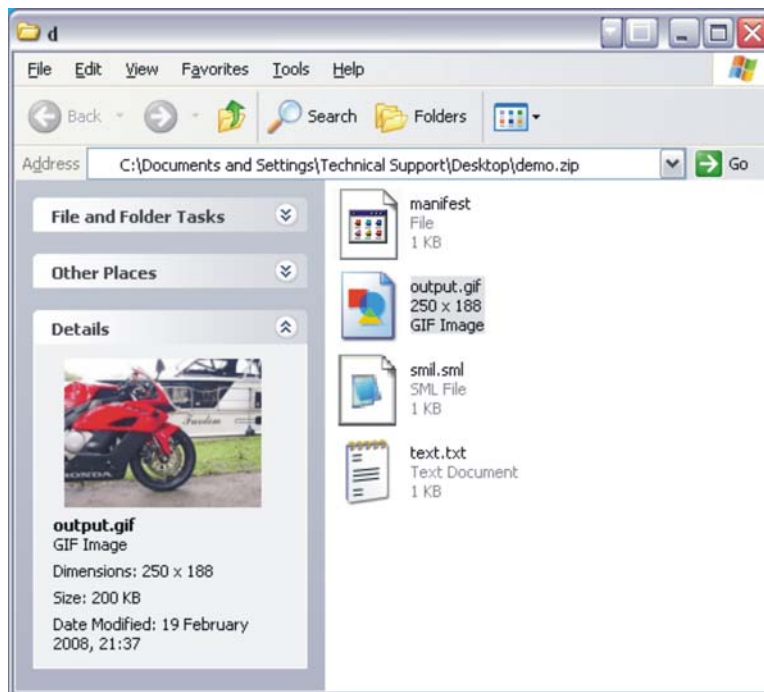
Textvertising provide online facilities for building MMS file structures from inside each account. Where you wish to use the API, you are responsible for building and successfully compressing the content into a valid ZIP structure. The ZIP file must not contain any other folders or be hierarched or the content will not be read (You should aim to use KEEP FILE STRUCTURE INTACT when zipping).

Essentially, the ZIP file should contain:

An smil.sml file.
This file contains the markup language to instruct the phone how to display the content contained within the ZIP file.

This example assumes that you have included a text file with some basic text and it is called "TEXT.TXT" and a picture called "MYPIC.JPG". This will display the image and the picture for 10 seconds then will close.

```
<SMIL>
<BODY>
<PAR DUR="10000MS">
<TEXT SRC="TEXT.TXT"></TEXT>
<IMG SRC="MYPIC.JPG></IMG>
</PAR>
<BODY>
<SMIL>
```

A file name manifest (with no extension).
The MANIFEST file should contain references to the entire content in the ZIP file excluding itself to tell the phone how each file should be handled to enable it to display properly.

Line 1: Creation date (remmed out by #)   >   #Thu Aug 11 16:25:52 GMT 2007
Line 2: SMIL file definition statement   >   smil.sml=application/smil
Line 3 onward: Content descriptors   >   filename=descriptor*

*Example basic content descriptors (there are many more depending on the files contained):

Mypicture.jpg=image/JPG
Mypicture.gif=image/GIF
Mytext.txt=text/plain
Myvideo.3gp=video/3gpp

In many cases if just sending some text information plus a picture or a video, the SMIL file can be omitted completely (including reference to it in the MANIFEST file) to further aid compatibility across handsets.

The "smil.sml" file is written in a code called SYNCHORNISED MULTIMEDIA INTEGRATION LANGUAGE which works in a similar way to HTML/XML. More information can be found at http://www.w3.org/AudioVideo/ and http://www.w3.org/TR/REC-smil/

The other content files.
These can be of many different types. (eg MP3, 3GP, MID, JPEG, GIF, TXT etc format). Many files can be included within the ZIP file as long as the extensions of the files are referred to within the MANIFEST file.

If you would like simple examples of formatted ZIP files, please contact us at support@textvertising.co.uk or on 0845 27 82055 or contact your Account Manager.

Important Notes:

Textvertising do not provide instructions on using SMIL and how each phone displays the result is handset dependant and beyond our control. We recommend keeping the content to the minimum – perhaps containing simply a single picture or video content and some text. This mimics the way each handset normally communicates when sending pictures or video content to each other and ensures good handset compatibility.

We recommend that all file names are in lowercase. Uppercase gives varied results and you may receive errors on submission if uppercase is used.

Submission of MMS files to Textvertising may take 500-1000ms. This is due to the need to retrieve the content of the file from your server and check the format is correct for network submission.

MMS files should be ideally less than 100kb when compressed. Textvertising will deliver up to 300kb successfully, but it is network and handset dependant. The networks do not offer delivery reports on MMS as yet.

Error reporting:
If an error exists on submission, a response will be shown. If accepted, ACCEPTED will be given. Otherwise you will receive an error. (Please see ERROR CODES on page 17).

Checking Your Account Balance via our API.

You can check how many available message credits are inside your account using our API. This is especially useful to enable your software to automatically check free messages before sending a message.

You can call the following page to request your balance:

http://www.textvertising.co.uk/cgi-bin/show_credits.pl

You should also pass two parameters USER and PASS.

Example HTTP GET

http://www.textvertising.co.uk/cgi-bin/show_credits.pl?user=YOURUSERNAME&pass=YOURPASS

Your account balance will simply be displayed as a number.

If you are on PREPAY where you purchase messages up front, the value will be the number of message credits you have left. (13432 is 13,432 messages available).

If you are on ACCOUNT the value shown will be the amount you owe to us in pence. (16789.1 is £167.891 pence which would be rounded to the nearest penny)

MMS Enabled Accounts.

If your account is MMS enabled and PREPAY, the result will show two figures separated by a comma. The first is your free SMS messages, the second the free MMS messages. (123,456 is 123 free SMS, 456 free MMS).

If you have an ACCOUNT with us, the balance will be the **total** amount owed, and this includes any MMS messages sent.

Error reporting:

If an error exists on submission, a response will be shown. (Please see ERROR CODES on page 17).

Submission Error Codes.

Receiving errors can be annoying and we can help you trace errors that may occur. Below is a list of the errors that you may receive and the reasons they usually occur. Some errors may be more specific.

FAILED LOGIN, NO ID or NO USERNAME	The username or password supplied is incorrect or blank
ACCOUNT PROBLEM: xxxxx	Your account is barred or another problem exists. xxxxx will be replaced by a specific error.
MESSAGE TOO LONG	The submitted message is longer than 160 characters
ONE OR MORE MOBILE NUMBERS IS INVALID	One or more of the numbers submitted is either too long, too short, is not a valid mobile number or does not start with 447...
MESSAGE CONTAINS INVALID CHARACTERS AT POSITION xx	The message contains an invalid character that cannot be accepted by the network. Where applicable xx will be replace by the position of character(s).
SMSID TOO LONG	The sender ID is longer than 11 characters if Alphanumeric or 13 numbers if Numeric.
EXPIRY WRONG FORMAT	The expiry date specified is in the wrong format or is malformed. This should be 4 numbers, MMDD (month, date). Maximum expiry time is 3 days from submission.
NO NUMBERS	Your submission contains no numbers.
ACCOUNT NOT PSMS ENABLED	You are attempting to send a premium rate message but the settings on your account do not permit this.
NETWORK INVALID	The network submitted is not valid, (see section 2 under NETWORK).
BILLING AMOUNT OUT OF RANGE	You are submitting an amount for the "pamt" parameter that is not correct (See the values - section 2 under PAMT).
NUMBER BARRED	The number you are submitting to has text stop or has been barred by the network from receiving premium messages.
MMS CREDIT IS ZERO	You have run out of free MMS messages and should top up your account.
MMS FAILED: xxxxx	Your MMS failed submission. xxxxx will be replaced by the reason.
NOT ENOUGH FREE MESSAGES	You have run out of free SMS messages and should top up your account.

Troubleshooting.

Commonly asked questions:

Q: "Inbound API does not work on the shortcode, only the virtual mobile number"
A: This is account specific. If your account is not setup to use the shortcode, it will not work. All accounts can be upgraded to use the shortcode. Please call us to talk about this.

Q: "I keep receiving errors when submitting data via HTTP POST"
A: Usually this is caused by a spelling mistake in the parameter name(s) or using uppercase instead of all lowercase letters. Passwords and usernames are case sensitive.

Q: "I cannot send PSMS request (Premium Rate SMS)
A: Your account must be activated to use reverse billing, it is not automatically available to all accounts.

Q: "I do not know how to write the necessary software to connect via your API what can I do?"
A: We can provide a range of basic software written in PERL, PHP and ASP. However, if you are unfamiliar with either setting up a server, or writing or running software on it, we advise you seek the help of a professional or use our web interface instead.

Q: "I am texting my keyword to test but not seeing a response at my server"
A: Double check the posting address and ensure you can call it from an EXTERNAL site. Sometimes you may be able to see it internally but from another location, this may not work. This is normally when your firewall blocks our requests. We can add a trace to test your connection and what is returned. If you are experiencing problems you cannot resolve, please call or chat with one of the Technical Support Team online.

<p style="text-align:center; color:red;">Should you experience any problems, please call our technical team on
0870 757 3686 who will be pleased to assist in the set up of our API.</p>