



## **Bulk Mobile Terminate text SMS, long messages & binary SMS: Documentation**

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## Introduction

iTAGG ( <http://itagg.com> ) has taken much of the effort out of sending text SMS messages, concatenated (long) text messages and binary messages such as WAP Push & vCards from web based servers and provides a simple interface:

- http & https POST - for sending text or binary messages immediately or at a predefined future date/time.

## Account Status

To find out the monetary value left in your wallet, please use the following script at any time. You are free to call this from a web browser or via an automated script.

<https://secure.itagg.com/smsg/accountbalance.mes?usr=XXX&pwd=YYY>

## Security

Your username and password should remain known only to you, and are the key to your account. If you wish to tighten up security you can:

### Specify IP addresses.

By specifying an IP address or a range of IP addresses you ensure that only specific machines can use your user name & password to send messages via the iTAGG APIs. You specify IP addresses in the 'My Profile' area of the iTAGG.com website. If there are no IP addresses, messages can be sent from any machine. If IP addresses are specified then security is enforced and all other sender IPs will be blocked.

## Further Help

This document explains most things that are needed to get going on sending SMS through iTAGG and also contains a few examples. It also explains how to check delivery receipts for messages sent. Further guidance can be sought by contacting iTAGG at [support@itagg.com](mailto:support@itagg.com).

## Hints

If you want to send a very large number of messages let us know beforehand we can ensure that all goes smoothly.

The cheap route (route 4) will have more failures than the other routes. If you don't mind that some will be delayed or fail to reach the recipient then route 4. For important SMS messages we recommend route 7 (UK) or 8 (most of the world) as these routes are fast and very reliable. Ported numbers are not guaranteed to be reached via route 4.

If you are sending a WAP Push message, avoid using spaces in the URL.

The National UK route will allow you to send text messages to all UK networks including ported numbers. The only limitation is messages are not guaranteed to reach ported numbers on the 3 network.

Always use the optional `incoming_message_id` parameter when sending a message in response to an inbound message. This will make things easier if you wish to take advantage of the log download & control panel logging information in the future.

Always log all information returned by the iTAGG server when you submit a message for sending. This contains vital information and will allow you to see whether there is a problem with your parameters or account status.

## Terminology

- MO – a 'Mobile Originate' message (ie. sent FROM a phone).
- MT – a 'Mobile Terminate' message (ie sent TO a phone).
- MSISDN - Mobile Subscriber ISDN Number. Country code + subscriber number. (eg 447889111111)
- Delivery receipt – every message sent to a handset generates at least one delivery receipt. These allow you to see exactly what state the message is in, and see when it was delivered to the handset. Full details in `itagg_delivery_receipt_PUSH.pdf`
- SMS - Short Message Service, ie text messaging to & from mobile phones
- Ported number – a mobile number that originally was on one network, but the user transferred it to a different one, ie. keeping the same number when moving from T-Mobile to Orange. This can cause problems for inferior quality routes. Use route 7 to guarantee reaching UK ported numbers.

## HTTP(S) POST Interface

### The URL

Clients are required to POST to the following URL.

- <https://secure.itagg.com/smsg/sms.mes>

### The Parameters

- **usr** Your iTAGG username.
- **pwd** Your iTAGG password.
- **from** The originator that will appear as the sender when the sms arrives on the phone. Depending on the route assigned, this may be an alpha string (upto 11 characters long), MSISDN or shortcode. This is currently:
  - **4** – 11 character alpha & MSISDN
  - **7** – 11 character alpha & MSISDN & shortcode
  - **8** – 11 character alpha & MSISDN & shortcode
- **to** Comma separated list of mobile phone numbers. UK numbers may begin with a 44 or 0 but should not have both, i.e. they should not read 44012345678. All other countries must begin with the country code & omit the leading zero.
- **send** Optional: a future date & time of when the message should be sent to the networks for delivery. If this parameter is omitted then the message is queued for immediate delivery. If supplied then it should be in the format: *yyyymmddhhmmss*. e.g. 20030302182304. Note that leading zeros in each and every date and time element must be included (i.e. enter **03** for the month of March rather than just **3**).
- **type** One of the following keywords: *text* or *binary*. These signify whether the message is a standard 7 bit text sms or an 8 bit binary sms. This is **text** for a normal SMS or **longmessage** (see below) or **binary** when you are sending a **vcard** or **url** (WAP Push message) or any binary message you are manually sending, such as a binary ringtone or operator logo.
- **route** The route number to send the message on. Currently:
  - **4** – for the budget
  - **7** – for the National UK (inc. Northern Ireland)
  - **8** – for the Global
- **txt** Actual text of the message to be sent (GSM character set only). If type is *text* then the maximum string length for a single SMS message is 160 characters. You can now send concatenated messages (multiple messages that are reassembled by the phone) of up to 1206 characters (9 messages of 134 characters each), and most phones can handle these. If type is *binary* then use the format & example shown below. This parameter must be urlencoded. Special characters such as “ ‘ < > & may be sent as normal (subject to urlencoding of the entire parameter) and should not be converted to XML encodings (e.g. &QUOT;). When sending a WAP Push message, this field must be in the format: **titleurl**. Eg. **txt=itagg site|www.itagg.com/**
- **sitype** This is required to let the control panel understand how to display a binary message in the sent message logs, or to confirm that you want to send a long message (concatenated message). For example you would set **sitype=vcard** when sending a vcard (see example below). Allowable values are: **vcard**, **url**, **longmessage**.
- **userdef** This is an optional parameter you can use to differentiate between messages sent from the same account. It can only be used for normal SMS messages, not WAP Push etc. It has no effect on the message itself, but in the control panel it will be marked with the value you give it. The value must start with 'log+' for the system to correctly recognise it, eg **...&userdef=log+sender1**
- **sendrelative** An alternative way to specify a send time; this is the number of seconds to wait from now before delivering.
- **dreceipt\_url** You can set up a default URL on your iTAGG account where all delivery receipts will be forwarded. In addition to this, you can override the default URL by setting the **dreceipt\_url** parameter for every message you send via the iTAGG system. This way you can run several sms applications via a single iTAGG account, all with full individual delivery receipts back to the sender application. This should be a full URL like **dreceipt\_url=http://www.yourserver.com/dreceipt1.php**. There is full documentation covering delivery receipts in the iTAGG docs zip file, with sample code you can use to parse the delivery receipt.

- **incoming\_message\_id**

If you have set up a keyword so that you receive inbound (MO) text messages directly to your server (see [itag\\_url\\_forwarding.pdf](#)), one of the parameters sent to you will be **message\_id**. This is a unique identifier for every MO message through the iTAGG system. When you send back a message (or more than one message) to the originator, you can now use the optional **incoming\_message\_id** parameter to link the MO and MT messages together. The advantage of doing this is that when you look at the 'Inbox' in the control panel, you get to see all linked messages sent as a result of the inbound message. You will also see this 'full path linkage' when you export data from your inbox.

## Examples

### 1 Send a message to multiple numbers.

This will submit a simple text sms for delivery to 3 numbers (2 in the UK and one with country code 39) on route 7. The sms will be pushed to the networks immediately. The originator will be set to **steve**.

<https://secure.itagg.com/smsg/sms.mes?usr=XXX&pwd=YYY&from=steve&to=07712345678,44791234567,3912345678&type=text&route=7&txt=hello>

The preferred communication is via POST. Here is an example in PHP, using cURL:

```
$itaggapi = "https://secure.itagg.com/smsg/sms.mes";
$params="usr=XXX&pwd=YYY&from=steve&to=07712345678,447912345678,3912345678&type=text&route=7&txt=hello+via+POST";
$ch = curl_init();

curl_setopt($ch, CURLOPT_URL, $itaggapi);
curl_setopt($ch, CURLOPT_POST, 1);
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
curl_setopt($ch, CURLOPT_POSTFIELDS, $params);

$returned = curl_exec ($ch);

curl_close ($ch);

print($returned); // This will be the OK / error message
```

This fundamental HTTP communication is supported by all other web server languages such as Perl, Java, ASP, ColdFusion etc. There are example scripts on the site, including ASP.

### 2 Send at future date

This will submit a simple text sms for delivery to 1 number (in the UK) on route 7. The sms will be pushed to the networks at 09:01.02am on 23<sup>rd</sup> August 2003. The originator will be set to **447798765432**.

<http://www.itagg.com/smsg/sms.mes?usr=XXX&pwd=YYY&from=447798765432&to=07712345678&type=text&send=20030823090102&route=7&txt=hello>

### 3 Long message.

The mechanism for sending a long message (or concatenated message, with more than 160 characters) to a phone is to split the message up into individual messages of no more than 134 characters and send these to the phone which will reassemble them. You will therefore be charged more to send a long message than a normal 160 character message. We take all of the complexity of this away for you; send us the message and we will we split it up and set the correct headers.

This example will send a long message to a phone that supports this. Not all phones and not all networks support concatenated messages (nearly all UK phones and all networks do though), so please test this thoroughly during development. The response sent back to you will have an additional line of text underneath, separated by a \n character detailing how many messages were sent.

<https://secure.itagg.com/smsg/sms.mes?usr=XXX&pwd=YYY&from=447798765432&to=07712345678&type=text&route=7&txt=hello+this+is+a+long+message....etc...&sitype=longmessage>

Again, please note that these examples use the GET mechanism for simplicity, but you should always use POST.

## Format & Examples for Binary – again GET shown here for simplicity but please use POST.

The **txt** field must contain hex pairs, each of which is preceded with a colon. The **txt** field consists of a UDH followed by a *dash* followed by the main hex message (no more than 140 hex character pairs). the following example sends a Vcard.

```
https://secure.itagg.com/smsg/sms.mes?usr=XXX&pwd=YYY&from=447798765432&to=07712345678&type=
binary&send=20030823090102&route=8&sitype=vcard&txt=:06:05:04:23:F4:00-
:00:42:45:47:49:4E:3A:56:43:41:52:44:0D:0A:56:45:52:53:49:4F:4E:3A:32:2E:31:0D:0A:4E:3A:5
3:6D:69:74:68:3B:4D:69:6B:65:0D:0A:54:45:4C:3B:50:52:45:46:3A:2B:35:35:35:31:32:33:34:35:
0D:0A:45:4E:44:3A:56:43:41:52:44:0D:0A
```

And a WAP Push URL:

```
https://secure.itagg.com/smsg/sms.mes?usr=XXX&pwd=YYY&from=447798765432&to=07712345678&ty
pe=binary&route=8&sitype=url&txt=The+page+title|http://www.mypage.com/images/imagel.jpg
```

## Return Parameters

When posting to the server an immediate response will be returned giving a send status (not a delivery receipt) together with a unique reference for this message batch. The first line is a simple heading and shows the names of the 3 columns returned. The second line contains 3 columns, each separated by the | (pipe) character.

- **error code**                      A code indicating the status of this sms send (not the delivery status). Current codes:
  - 0**        SMS submitted successfully.
  - 1**        Bad user details. Please check your username/password.
  - 2**        One or more of the required fields is missing or invalid.
  - 10x**     Submission failed.
  - 20x**     Service message submission failed.
- **error text**                      simple text giving status of the send.
- **submission reference**        This is a unique 34 character code which references this message batch. Note that the 33<sup>rd</sup> character is always a dash and the 34<sup>th</sup> character indicates the server that handled the request internally.

The return parameters will look like the following:

```
error code|error text|submission reference
0|sms submitted|eb725f96b4b094d5f8318741cc1a545f-2
```

Failures are indicated as follows:

```
error code|error text|submission reference
```

```
1|bad user details|0
2|missing or invalid fields|0
2|missing or invalid fields (1000)|0 ( no text )
2|missing or invalid fields (1001)|0 ( too many characters for text message: max 160 )
2|missing or invalid fields (1002)|0 ( too many characters for binary message: max 140 )
2|missing or invalid fields (1003)|0 ( too many characters for unicode message: max 70 )
2|missing or invalid fields (1004)|0 ( invalid longmessage – too long or 0 characters. )
3|invalid route|0
100|submission failed|0 ( unable to queue message for sending )
101|submission failed|0 (unknown countrycode )
102|submission failed|0 ( insufficient funds )
201|SI submission failed - invalid sitype |0
202|SI submission failed - invalid URL format|0
301|invalid msisdn alias|0
```

and ok is:

```
error code|error text|submission reference
0|sms submitted|[32 characters]-[1 character]
```

**Note** – You can set up the iTAGG control panel so that you get immediately alerted by sms or email when your wallet runs out, or a daily email alert if your wallet drops below a certain limit.

## Delivery Receipts

Delivery receipts are available for all messages. You can set a default URL for all receipts through your account via a page in the control panel. You can also use the parameter **dreceipt\_url** mentioned above to override this if necessary on a per-message basis. There is full documentation regarding delivery receipts in the itagg\_docs.zip file.

## GSM Character set.

This is the GSM character set. Stick to these characters in your message to ensure that it gets through. Messages containing other characters *might* work, but there's no guarantee, and some networks replace some unknown characters with a full stop. Stick to these & you should be OK.

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz01234567889@?£\_!1\$"¥#è  
 ? ¢ é % ù & ì \ ò ( Ç ) \* : Ø + ; Ä ä ø Æ , < L Ö l ö æ - = Ñ ñ Å ß . > Ü ü å É / \$ à ; ç '