



# Technical Specification Premium SMS gateway

Non-subscription services

*(TS.001)*

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## **Version history**

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# 1. Terminology

## **Mobile Originated (MO)**

A message sent from a mobile device to a premium shortcode by the end-user (your customer).

## **Mobile Terminated (MT)**

A message sent to a mobile device.

## **Shortcode**

The number the end-user uses to send MO messages to. For example: 3010.

## **Keyword**

The first word, or first two words of a Mobile Originated message. The keyword will be used to identify the SMS service. When a keyword consists of multiple words, the first word will be referred to as 'main keyword', the second keyword as 'sub keyword'.

Example: Text TEST to 3010 (keyword is TEST)

## **Non-subscription service**

A premium SMS service that takes and processes an MO message, and sends back one or more MT messages as a response.

## **MO handler**

Script on your server that is called when an MO message is received, and that needs to handle the message. After handling it should call the premium SMS gateway with details about the MT messages to send back to the end-user.

## **WAP push message**

An SMS that contains an URL to a WAP/mobile website. Instead of a normal text message, the end-user gets a confirmation screen for visiting the website. When the user confirms, a connection to the site will be made automatically.

## **Code of Conduct**

Each country supported by TargetSMS has its own (self-)regulation with which your service must comply.

# 2. Preface

This document describes how to set up a non-subscription based premium SMS service. In a nutshell, the handling of a non-subscription based premium SMS service works as follows:

- The customer sends an MO message to the shortcode.
- Depending on the keyword or shortcode (when you have your own unique shortcode), an URL on your server will be called by our system with details about the sent MO message (see section 4)
- Your server processes the incoming message and calls our gateway with the text and end-user rate to use as a reply (see section 5)
- As soon as the delivery status of the messages becomes available, we will call an URL on your server with the status (see section 6).

A more detailed explanation of these steps will follow in the next sections.

There is also some sample code available for PHP, see the last section of this document for more information.

### 3. Requirements

In order to set up a non-subscription premium SMS service:

- a) You will need to have a website and knowledge of scripting languages (ASP, PHP)
- b) You need an account on [www.targetsms.nl](http://www.targetsms.nl). If you don't have an account yet, please create one on <http://www.targetsms.nl/signup>
- c) You need to register a keyword and enter some details of your service on <http://www.targetsms.nl/advanced/gateway> (menu: Gateway -> Premium SMS -> Non-subscription).

### 4. Receiving MO messages

When you set up the keyword, the URL for handling incoming messages was also entered. When an MO message is received by the premium SMS gateway for your keyword (or shortcode, when you have a unique shortcode) we will call your MO handler by using HTTP GET with all details of the MO message:

Variable	Description	Format	Example
MO_MessageId	Unique message ID	Numerical	534048699
ShortCode	Shortcode	Numerical	3010
MO_ShortKey	Keyword	Alphanumeric	WEB
Message	Complete message	Alphanumeric	Web test
SendTo	End-user phone number	Numerical	31612345678
operator	Operator ID	Alphanumeric	02F480

#### Explanation:

- MO\_MessageId: the ID of the incoming SMS message.
- ShortCode: the shortcode the message was sent to.
- MO\_ShortKey: the keyword of the service.
- Message: the full message text. Do not rely on this value to determine the keyword. Use MO\_ShortKey instead (see Notes).
- SendTo: end-users phone number in international format.
- operator: ID of the mobile operator. See <http://www.targetsms.nl/operators> for a list.

#### Example:

```
http://www.mysite.nl/smsHandler.php?SendTo=31612345678&Message=WEB+SMS+TEST&ShortCode=3010&MO_MessageId=534048699&operator=02F480&MO_ShortKey=WEB+SMS
```

#### Expected response:

The premium SMS gateway expects your script to respond with: 45000

If you send any other data, the SMS gateway will retry until it receives a 45000 response. Please do only respond with a value other than 45000 when it makes sense to do a retry later (for example, when your database server is unavailable at that moment).

## Notes:

- In some scripting languages, like PHP, variables are case-sensitive. Please take notice of the exact spelling of the variable-names. E.g. use `$_GET["MO_MessageId"]`, `$_GET["MO_ShortKey"]`, etc.
- You can secure your MO handler by checking if the requests are coming from **89.184.168.65 or from 78.152.58.66** (In PHP, see: `$_SERVER["REMOTE_ADDR"]`)
- Make sure no other output than 45000 is given as a response, for example PHP error messages. Consider turning off 'DisplayErrors' in your configuration file (php.ini), which is recommended in general.
- In general: do not rely on the message text to determine what keyword was used, but use MO\_ShortKey. Example: in some countries sending STOP will stop all subscriptions to that shortcode. We will call the MO handlers for all active subscription services, however the message text will probably be 'STOP', but we will search the right keyword and put it in MO\_ShortKey.

## 5. Reply with MT messages

Now your script has received the details and did the necessary handling (like forwarding the message content by e-mail to the webmaster, or pulling information from a database), it now needs to reply with one or more MT messages.

For each message that has to be sent back, the following URL has to be called with HTTP POST:

`http://api.targetsms.nl/ps_handler/sendmessagev2.asp`

The following variables apply:

Variable	Description	Format	Mandatory	Example
username	TargetSMS username	Alphanumeric	Yes	myaccount
handle	Access code	Alphanumeric	Yes	d6861a8f6697a2aad8fe7d
shortcode	Keyword	Alphanumeric	Yes	TEST
sendto	Recipient's phone number	Numeric	Yes	31612345678
mo_messageid	Message ID of the incoming message	Numeric	Yes	56845612
message	Message text to be send back	Alphanumeric	Yes	Example message text
tariff	Amount to be billed	Numeric	Yes	150
push	WAP push message	'0', '1'	No	1
purl	WAP push URL	Alphanumeric	No	http://www.test.com
returnid	Return message id in the response	Always 'yes'	No	yes

### Explanation:

- username: The username of your TargetSMS account
- handle: Hash ID that belongs to your TargetSMS account. This is not your TargetSMS login password. You can find it on [www.targetsms.nl/handle](http://www.targetsms.nl/handle) (after log in)
- tariff: The rate that will be charged to the end-user for receiving the message. The rate is in cents, local currency and must be equal to or lower than the rate you set when registering the keyword.

- Note 1: In some countries (like Belgium) the end-user rate is fixed per shortcode, the value for 'tariff' will be ignored.
- Note 2: Service- or error messages in the Netherlands may not be charged for more than 25 eurocents.
- push: A WAP push is a bookmark for a mobile phone. Enter 1 for this parameter when a WAP push SMS message has to be sent.
- purl: set the URL of the WAP push message here (only applicable when push=1)
- message: the message text to reply. Your text may be no longer than 160 characters. In case of a WAP push, the maximum length is 25 characters. You can use the following characters: a-z, A-Z, 0-9, +%#()\*+,- /:;<=>?\_£¥§ÄÅÜäèéíñòöü=
- returnid: add this parameter with value 'yes' when you want to receive the MT message ID in the response. You may use this ID in receiving your billing status.

The following parameters can simply be passed on:

- shortcut: The keyword of your service (see: MO\_ShortKey)
- shortcode: The shortcode your service runs on (see: ShortCode)
- sendto: The end-users phone number (see: SendTo)
- mo\_messageid: The ID of the MO message (see: MO\_MessageId)

**Example:**

```
http://api.targetsms.nl/ps_handler/sendmessagev2.asp?username=test&handle=d6861a8f6697a28fe7d92c586178ce55&shortcut=TEST&shortcode=3010&sendto=31612345678&mo_messageid=32479824397&message=Dit+is+een+test&tariff=025&returnid=yes
```

**Response:**

When the message has been sent, the response will be:  
45000 MT message ID  
(for example. 45000 785340486)

Store the ID of the MT message when you want to be able to determine if the message was delivered and paid. See also the next section "Getting delivery/billing status".

**Errors:**

If not OK, one of the following error-codes will be returned:

45001	Incorrect phone number
45002	Incorrect message
45003	Incorrect shortcode
45004	Incorrect mo_messageid
45005	MO record not found for this mo_messageid or maximum number of messages exceeded
45006	Invalid end-user rate (tariff)
45007	Username doesn't match keyword owner
45013	End-user rate (tariff) was higher than the registered price
45019	Unknown member
45020	Maximum number of messages exceeded
45022	Incorrect URL
45023	WAP description too long
45024	URL too long
45025	End-user rate must be zero (000) when sending a WAP Push message in this country
45030	No handle specified
45031	Incorrect handle
45091	Blocked by infofilter
45092	Blocked by infofilter

## 6. Getting delivery/billing status

When an 45000 785340486 response has been given when sending the MT messages, this does not necessarily mean that the message was delivered (thus: paid).

When SMS delivery status has been set up during the process of registering your keyword, the URL you specified will be called using the HTTP GET request method. To use this service the parameter `returnid=yes` has to be sent with `sendmessagev2` to retrieve the correct MT Message ID.

The following variables will be sent:

Variable	Description	Format
id	MT Message ID	Alphanumeric
reason	Status code	Numeric
shortcode	Shortcode	Numeric

### Explanation:

- id: MT message ID, this value was returned by the MT interface in the previous section.
- reason: Status of the message, see for a list: <http://www.targetsms.nl/statuscodes>
- shortcode: Shortcode corresponding to the service.

### Example:

```
http://www.mysite.nl/statushandler.php?id=785340486&reason=0&shortcode=3010
```

### Expected response:

The premium SMS gateway expects your script to respond with: 45000

If you send any other data, the SMS gateway will retry until it receives a 45000 response. Please do only respond with a value other than 45000 when it makes sense to do a retry later (for example, when your database server is unavailable at that moment).

### Notes:

- The url where we send the Status information to can be implemented in the wizard on [www.targetsms.nl](http://www.targetsms.nl) at your keyword.
- In some scripting languages, like PHP, variables are case-sensitive. Please take notice of the exact spelling of the variable-names.
- You can secure your MO handler by checking if the requests are coming from **89.184.168.65** or from **78.152.58.66** (In PHP, see: `$_SERVER["REMOTE_ADDR"]`)
- Make sure no other output than 45000 is given as a response, for example PHP error messages. Consider turning off 'DisplayErrors' in your configuration file (php.ini), which is recommended in general.

## 7. Example code

For your convenience, there is sample code available. The package can be downloaded from:

<http://www.targetsms.nl/examples/targetsms.zip>

For non-subscription services, the following scripts from the package are relevant:

- `class.httprequest.php`: Defines a class to call URL's without using fopen wrappers or cURL. Installing of non-standard PHP modules is therefore not needed.
- `class.targetsms.php`: This class contains several useful functions for interfacing with the TargetSMS gateway.
- `non-subscription.php`: An example handler for incoming messages.
- `config.php`: Describes the variables you probably want to change to your own preferences without changing the code, e.g. SMS texts.

## 8. Troubleshooting

This section describes some common problems and solutions as well as contact information for our tech support.

### 8.1 Common problems

#### **Unexpected errors occur when the given URLs are called, for example: 400 HTTP Bad request**

Check if the data that was sent was URL encoded. If you are experiencing problems with URL encoding, please try the class in `class.httprequest.php` to make the calls. In that class all parameters are encoded automatically.

#### **There is an empty response from the URL or PHP errors are shown like 'Failed to open stream...'**

Make sure that fopen-wrappers are enabled when calling the URLs with the `file()` or `fopen()` function in PHP, you check this using `phpinfo()`.

If fopen-wrappers are not enabled, you can also call the URLs using the cURL library or use the class in `class.httprequest.php` from our package with examples (the latter doesn't depend on any packages whatsoever). If you want to use cURL, make sure that the library is enabled.

#### **An error code of 45000 is returned**

Make sure that you don't exceed the maximum number of messages per day/week/month that you set when registering the keyword.

#### **The variables like `$_GET["mo_messageid"]` are empty!**

Make sure that you fetch the variables from the right array, so use `$_GET` instead of `$_POST` when your handler is called using a HTTP GET. Also, take into account that variable names are case-sensitive in PHP.

**When sending an MT message in Belgium the end-user rate shown in the reports isn't correct.**

In Belgium the end-user rate is fixed for each shortcode. When you send an MT message, the tariff parameter will therefore be ignored. In the sales reports you'll find the end-user rate and payout that belongs to the shortcode.

**The SMS gateway keeps calling the MO handler.**

When your MO handler returns any other value than 45000, our gateway will retry several times. Make sure that you have enabled error logging and disabled the output of errors to the client when using PHP, as they might output some unexpected information to the client.

## 8.2 Getting help

If you experience difficulties while implementing our Premium SMS interface, and the 'common problems' section was of no help, you can contact our tech support at:

**techsupport@targetmedia.nl** (Dutch and English support are available)

Please send us as much specifics as possible, including:

- Your TargetSMS username (do not send your password or handle!);
- Your shortcode, keyword;
- Phone number;
- (Approximate) date and time;
- Any error messages you get.

We recommend the use of the Example classes, as logging is build in there. You only need to set the default value for \$notify in class.targetsms.php to your e-mail address and you will receive an e-mail with all details about the incoming MO and outgoing MT requests when an error occurs.

Our engineers will answer your mails within 24 hours (on business days, CET)