



# API-SMS MailSMS Interface

Ref. 17041803 - Push SMS, Balance, ACKs.

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# 1 Introduction

This document is based on the LabsMobile API-SMS MailSMS Interface and it is designed for technicians and clients that wish to connect their applications to LabsMobile's SMS messaging platform. The purpose of integrating these applications is to send SMS (MT or Push SMS) messages and related communications (ACKs and credit search).

This document contains a detailed explanation of the integration process. If you have any questions or need examples of code, please contact your usual LabsMobile agent or contact us at:

[support@labsmobile.com](mailto:support@labsmobile.com)

[www.labsmobile.com](http://www.labsmobile.com)

## 1.1 Changelog

**v2.09** - 01/16/2016

- Prices request

**v2.10** - 03/16/2016

- Receive visits (CLICKs)

**v2.11** - 03/30/2016

- Confirmations request (ACK)

- Retries in receiving confirmations (ACK)

- Creating a subid when a request has been processed correctly.

**v2.12** - 04/18/2017

- Status and error information in ACK confirmations

## 2 Send SMS messages (MT)

### 2.1 Required information

For the integration with the API-SMS HTTP Interface the following information provided by LabsMobile is essential:

- Username and password (shown on the registration e-mail)

Optionally you can communicate to LabsMobile the following parameters:

- IP Address where the messages will be sent. For security purposes the messaging platform will only admit messages from this/ these IP/s. This functionality is optional, this option is not activated by default and messages from any IP address will be accepted.
- Sender by default (default TPOA, by default is LABSMOBILE unless otherwise indicated).
- Messages daily limit, by default up to 50,000 sms/per day.
- Messages limit by batch, by default up to 10,000 sms/sending.

**IMPORTANT:** All these parameters will be assigned with the values by default to all accounts.

### 2.2 MailSMS sending

Sending SMS messages through API-SMS HTTP Interface could be accomplished through two methods:

#### Simple method

Sending an e-mail to an address based on the destination number and adding text in the body of the e-mail.

The emails should be sent from the email address with which you signed up the account and in the subject should appear the password. An SMS sent to number 34609316281 should be sent as follows:

```
To: 34609316281@api.labsmobile.com
From: Sender <nombre@de_usuario.com>
Subject: account_password
Body: This is a test message
```

This method only allows you to specify the text of the message and the destination number. To set other advanced or additional options you must use the XML method described below.

#### XML method

Sending emails to an account provided by LabsMobile with a certain format which is explained in this document.

```
sms@api.labsmobile.com
```

This account will accept e-mail messages. The email should include authentication parameters as detailed below. These parameters and other variables that define the sending (text, phone numbers, sender, etc ...) will be included as the message body in XML format.

The rest of this document describes this second method with all its options.

## 2.3 XML format

The parameters and contents of the sending must be sent in XML format within the message body.

**IMPORTANT:** The email must be in text-only mode (no HTML) and encoded in UTF-8. All the answers and messages sent from the platform LabsMobile are encoded with the same character set (UTF-8).

Below you can see an example of a simple XML format for simple sending:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609842162</msisdn>
  </recipient>
  <tpoa>LABSMOBILE</tpoa>
  <message>Mensaje de prueba</message>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

**IMPORTANT:** The subject field of the e-mail is not relevant to the *API-MailSMS Interface* and therefore it can contain any value or be empty.

Name	Description
<b>sms</b>	Required. Delimits the beginning and end of a message.
<b>recipient</b>	Required. Delimits the message recipients.
<b>msisdn</b>	Required. Tag that includes a mobile number recipient. The number must include the country code without '+' ó '00'.  Example: 34609033162.  Each customer account has a maximum number of msisdn per sending. See the terms of your account to see this limit.
<b>message</b>	Required. The message to be sent. The maximum message length is 160 characters. Only characters in the GSM 3.38 7bit alphabet, found at the end of this document, are valid.

Name	Description
<b>tpoa</b>	<p>Optional. Sender of the message. May have a numeric (maximum length, 14 digits) or an alphanumeric (maximum capacity, 11 characters) value. The messaging platform assigns a default sender if this variable is not included.</p> <p>By including the sender's mobile number, the message recipient can easily respond from their mobile phone with the "Reply" button. The sender can only be defined in some countries due to the restrictions of the operators. Otherwise the sender is a random numeric value.</p>
<b>subid</b>	<p>Optional. Message ID included in the ACKs (delivery confirmations). It is a unique delivery ID issued by the API client. It has a maximum length of 20 characters.</p>
<b>label</b>	<p>Optional. Identifies the message for statistical purposes. WebSMS and other applications use this field to organize and record the message. Maximum capacity of 255 characters.</p> <p>Typical information contained in this field: user that has sent the message, application or module, etc. ...</p>
<b>test</b>	<p>Optional. If the value is 1, the message will be considered a test. It will not be sent to the GSM network and, therefore, will not be received on any mobile devices. However, these messages are accessible using online search tools. This tag is intended to enable performing integration tests without an associated cost. Operator and handset confirmations will not be received. Example. <code>&lt;test&gt;1&lt;/test&gt;</code></p>
<b>ackurl</b>	<p>Optional. URL to which the corresponding delivery confirmation notifications will be sent. In the preferences section of WebSMS application you can set the default value for <i>ackurl</i> for all cases without having to send this tag in each sending.</p> <p>Example: <code>&lt;ackurl&gt;<a href="http://clientserver.com/receive_ack.php">http://clientserver.com/receive_ack.php</a>&lt;/ackurl&gt;</code></p>
<b>shortlink</b>	<p>Optional. If this field is present in the message and has a value of 1 the first URL would be replaced by a short link of LabsMobile (format: <code><a href="http://lm0.es/XXXXX">http://lm0.es/XXXXX</a></code>). The statistics of visits can be seen in WebSMS application or can be received in an url with the tag <i>clickurl</i>.</p> <p>Example: <code>&lt;shortlink&gt;1&lt;/shortlink&gt;</code></p>
<b>clickurl</b>	<p>Optional. URL to which the corresponding click confirmation notifications will be sent if the tag <i>shortlink</i> is enabled. In the preferences section of WebSMS application you can set the default value for <i>clickurl</i> for all cases without having to send this tag in each sending.</p> <p>Ejemplo: <code>&lt;clickurl&gt;<a href="http://clientserver.com/receive_click.php">http://clientserver.com/receive_click.php</a>&lt;/clickurl&gt;</code></p>

Name	Description
<b>scheduled</b>	<p>Optional. The message will be sent at the date and time indicated in this field. If this field has not been specified, the message will be sent immediately. Format: YYYY-MM-DD HH:MM:SS.</p> <p>Example: <code>&lt;scheduled&gt;2012-11-07 17:34:00&lt;/scheduled&gt;</code></p> <p>IMPORTANT: the value of this field must be expressed using GMT time.</p>
<b>long</b>	<p>Optional. If this field is present in the message and has a value of 1, the message field may contain up to 459 characters. Each 153 characters will be considered a single message (in terms of charges) and the recipient will receive one, concatenated message.</p> <p>Example: <code>&lt;long&gt;1&lt;/long&gt;</code></p> <p>IMPORTANT: This option is only available in some countries due to the restrictions of the operators.</p>
<b>crt</b>	<p>Optional. If this field is present in the message, it will be considered a certified SMS message. An email with the delivery certificate in an attachment will be sent to the address contained in this tag.</p> <p>Example: <code>&lt;crt&gt;info@client.es&lt;/crt&gt;</code></p> <p>IMPORTANT: This option is only implemented in some countries.</p>
<b>user</b>	<p>Name of the user account that can send messages via the API-SMS MailSMS Interface. Fixed value assigned by LabsMobile. Required field.</p>
<b>pwd</b>	<p>Password for the user account. This field is fixed and assigned by LabsMobile. If the variable authentication is enabled this field should not be included. For more information see the Authentication section of this document.</p>
<b>key</b>	<p>A string containing the value resulting from the concatenation of the timestamp fields and pwd after applying the hash function md5().</p>
<b>timestamp</b>	<p>Date/time of the sending in the following format YYYYMMDDHHMMSS. It is a required field and can have a fixed value if the variable is not used for dynamic authentication.</p>
<b>ucs2</b>	<p>Optional. If this field is present in the message the message can contain any character in the UCS-2 alphabet. In this case the capacity of the message is 70 characters and can be sent concatenated to a maximum of 500 characters. Ej. <code>&lt;ucs2&gt;1&lt;/ucs2&gt;</code></p>
<b>nofilter</b>	<p>Optional. If this field is present the platform won't apply the duplicate filter, so no message will be blocked by this filter.</p>

IMPORTANT: The *sms*, *recipient*, *msisdn*, *message*, *user*, *key* and *timestamp* tags are mandatory. Messages that do not contain one or more of these fields will generate an error corresponding to the field in question. Likewise, blank *msisdn* and *message* fields will also generate an error.

## 2.4 XML examples

Sending standard message with *handset* delivery confirmation:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609542312</msisdn>
  </recipient>
  <message>Test message number 1</message>
  <acklevel>handset</acklevel>
  <ackurl>http://clientserver.com/receive_ack.php</ackurl>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

Sending multiple test messages with *subid* and *label* identifiers:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609542312</msisdn>
    <msisdn>34609542314</msisdn>
  </recipient>
  <message>Test message number 1</message>
  <subid>L-203</subid>
  <test>1</test>
  <label>[from]=websms; [user]=admin;</label>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

## 2.5 Authentication

The messaging platform verifies all calls to the API-SMS MailSMS Interface before accept and process any sending.

**IMPORTANT:** Optionally, you can activate valid source addresses filtering spam. In this case only messages from certain sources will be accepted.

If the username and password are not correct, the platform won't process the message. This message will not appear in the statistics or the SEARCHER of WebSMS application. These are the fields that is related to the authentication and validation of the message:

```
<timestamp>20091010222222</timestamp>
<user>test021</user>
<pwd>tg72dc62</pwd>
<key>75eebf3eabdf76980eef9baba9926c41</key>
```

The authentication algorithm verifies the following:

- The existence of the username tag.
- The correct association of the username to the appropriate client.
- Password validation.
- Validation of the variable key: key = md5(timestamp + pwd)



**IMPORTANT:** If the dynamic authentication is set the *timestamp* tag must contain the date/time value of the sending and the field *pwd* should not be present. If the sending don't use the dynamic authentication the field *pwd* has to be present in the message and the *timestamp* could contain a fixed value that satisfies: *md5(timestamp + pwd)*.

## 2.6 Filters and security

As shown on the error codes and on the Authentication section, there are different security measures in delivering to prevent improper use:

- Username and password authentication.
- List of IPs of origin accepted.
- Possibility of encryption of the sent/received data (HTTPS).
- Maximum number by batch or delivery.
- Maximum number of daily sent messages.
- Filter of duplicated messages.
- Credit of the account in case of it being a prepaid account.

All these parameters may vary according to the account. Check out the PREFERENCES section of your WebSMS account to know the values of these filters or contact your LabsMobile agent.

**IMPORTANT:** The filter of duplicated messages will block (not deliver) messages with the same text and sender sent to the same number within the same hour. Therefore, only the first message will be sent and the duplicated ones (same text) will remain marked as duplicated and will not be sent. The duplicated messages are visible on the SEARCHER of the application WebSMS.

## 2.7 Supported characters

The LabsMobile messaging platform supports the GSM (GSM 3.38 7-bit) alphabet standard. The message (<message>) and sender (<tpoa>) fields therefore must only contain characters in this alphabet. The last chapter of this document contains a complete list of the GSM alphabet.

Messages sent containing unsupported characters will be returned along with the corresponding error message. From LabsMobile, we advise substituting some of these character for others that are permitted while conserving the message's meaning. An example is presented below:

```
$message = `Subs chars áíóúçÑ`;  
$ko = array(`á`,`í`,`ó`,`ú`,`ç`,`Ñ`);  
$ok = array(`a`,`i`,`o`,`u`,`C`,`ñ`);  
$message = str_replace($ko, $ok, $message);  
echo $message;  
// output: `Subs chars aiouçñ`
```

## 2.8 Account for tests and account applications

You can request your own account following the steps to create an account on [www.labsmobile.com](http://www.labsmobile.com). You will instantly receive an email with your account details (username/password). This account can be used through the online application (WebSMS - <http://websms.labsmobile.com>) or on any of the SMSAPI (POST, GET, Mail, and Webservice) interfaces.

During the integration process, the test tag is available for test messages. These are simulated messages that will NOT be sent to the specified mobile device and are useful for performing initial tests at no cost. Test messages will not generate an acknowledgement of receipt (ACK) and may be accessed on the WebSMS application in the BROWSER module.

## 3 Send concatenated messages (SMSLong)

SMSLong messages are SMS messages with a size that exceeds 160 characters. These messages are billed as multiple messages (each 153 characters) but the recipient will receive them as if they were a single message. Please visit the LabsMobile site to learn more about this type of message.

**IMPORTANT:** Concatenated messages have a maximum capacity of up to 459 characters. SMSLong is only available in some countries due to the restrictions of the operators.

The delivery process is the same, but the *long* tag must be added to the XML format. All messages with this tag will be treated as SMSLong messages. All other tags are valid and have the same features. An example of the XML format for an SMSLong message would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609542312</msisdn>
  </recipient>
  <message>Test message SMSLong. This is a very long
message that could reach 459 chars. The output message will be a
unique message and the final user will read this text as one
single message.</message>
  <long>1</long>
  <tpoa>SenderName</tpoa>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

## 4 Send UCS2 messages (SMSUnicode)

SMSUnicode messages are SMS messages with characters not present in GSM standard charset or alphabet. These messages are billed as normal messages for each 70 characters and with a maximum capacity of 500 characters. Please visit the LabsMobile site to learn more about this type of message.

**IMPORTANT: UCS2 messages have a maximum capacity of up to 500 characters. SMSUnicode is only available in some countries due to the restrictions of the operators.**

The delivery process is the same, but the *ucs2* variable must be added. All messages with this variable will be treated as SMSUnicode messages. All other variables are valid and have the same features. An example of SMSUnicode message would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609542312</msisdn>
  </recipient>
  <message>Аликанте приглашает</message>
  <ucs2>1</ucs2>
  <tpoa>SenderName</tpoa>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

## 5 Send certified messages (SMSCert)

SMSCert messages are SMS messages with a delivery and receipt certificate. These messages are unique in that they generate a PDF document that verifies the delivery and receipt of the message. Please visit the LabsMobile site to learn more about this type of message.

**IMPORTANT:** Concatenated messages have a technical capacity of up to 750 characters. SMSCert is only implemented in some countries.

The delivery process is the same, but the *crt* tag must be added to the XML format. All messages with this tag will be treated like SMSCert messages. All other tags are valid and have the same features. An example of the XML format for an SMSCert message would be:

```
<?xml version="1.0" encoding="UTF-8"?>
<sms>
  <recipient>
    <msisdn>34609542312</msisdn>
  </recipient>
  <message>Test message SMSCert.</message>
  <crt>info@client.com</crt>
  <tpoa>SenderName</tpoa>
  <timestamp>20091010222222</timestamp>
  <user>test021</user>
  <pwd>tg72dc62</pwd>
  <key>75eebf3eabdf76980eef9baba9926c41</key>
</sms>
```

## 6 Receive confirmations (ACKs)

A client of LabsMobile's *API-SMS HTTP Interface* may request to receive delivery confirmations asynchronously in its system. Using the tags *subid* and *ackurl* in the XML format, they can receive HTTP/GET notifications for each mobile number included in the message. The following levels are available:

- *gateway*: when the message is sent to the GSM network.
- *operator*: when the final operator takes charge of the delivery.
- *handset*: when the mobile device receives the message.
- *error*: an error occurred while delivering the message. Then the *status=ko* and the *desc* field specifies the error type.

**IMPORTANT:** Some of the delivery confirmation levels may not be available for some operators or routes.

The *handset* confirmation will not be received if there is some type of temporary incident with the mobile device, such as a lack of coverage/battery power or an inbox issue.

Delivery confirmations will be received at the URL indicated in the *ackurl* tag and shall have the following format:

```
?acklevel=[gateway|operator|handset|error]&msisdn=...&status=[ok|ko]&desc=...&subid=...&timestamp=YYYY-MM-DD%20HH:MM:SS
```

Variable	Values
<b>acklevel</b>	gateway, operator, handset, error
<b>status</b>	ok, ko
<b>desc</b>	REJECTD, EXPIRED, DUPLICATED, UNDELIV, UNKNOWN

**IMPORTANT:** The timestamp variable contains hours in GMT or UTC and, therefore, will change to adapt to client's time zone or local time.

**IMPORTANT:** If the HTTP/GET call generates an error (HTTP 4xx or 5xx status) the platform would retry the delivery of the ACK 5 times at the following intervals: 30s, 5m, 30m, 6h, 1d.

## 7 Confirmations request (ACKs)

With a call to a URL (script) it is possible to know the status of an SMS message. The request must identify the message with two HTTP/GET variables: *subid* and *msisdn*. Authentication should be done with user account and password in the header of the HTTP connection.

Variable	Description
<b>subid</b>	Required. Sending identifier.
<b>msisdn</b>	Required. The number including the country code without '+' ó '00'.

The URL for the call confirmation request is:

```
https://[username]:[password]@api.labsmobile.com/ack.php?
subid=[x]&msisdn=[x]
```

The result will have the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<response>
  <subid>X</subid>
  <msisdn>X</msisdn>
  <status>X</status>
  <credits>X</credits>
  <desc>X</desc>
  <timestamp>X</timestamp>
</response>
```

The list of possible status are:

Status	Description
<b>processed</b>	Processed message.
<b>test</b>	Message sent in simulated mode with the test variable enabled.
<b>error</b>	Error in message delivery. Then <i>desc</i> field specifies the error type: REJECTD, EXPIRED, DUPLICATED, UNDELIV, UNKNOWN.
<b>gateway</b>	Message delivered to the GSM network.
<b>operator</b>	Message received by the local operator.
<b>handset</b>	Message delivered to the device.

**IMPORTANT:** The timestamp variable contains hours in GMT or UTC and, therefore, will change to adapt to client's time zone or local time.

## 8 Receive visits (CLICKs)

A client of LabsMobile's *API-SMS HTTP Interface* may request to receive asynchronously visit confirmations in an url that was labeled as shortlink. Using the tags *subid*, *shortlink* and *clickurl* in the XML format, they can receive HTTP/POST JSON notifications for each visit or click.

To receive these visit notifications is necessary that the message contains the tag *shortlink* and its value should be 1. When a visit or click on the shortlink which will replace the original url occur you will be notified with a HTTP/POST JSON call with all the user details.

The destination URL can be specified in each sending with the tag *clickurl* or you can set a default url for all sendings in WebSMS Preferences.

This is the content of a visit notification:

```
Content-Type: application/json
Accept: application/json

{
  "ip" : "XXX.XXX.XXX.XXX",
  "useragent" : "...",
  "subid" : "...",
  "msisdn" : "...",
  "timestamp" : "YYYY-MM-DD HH:mm:ss"
}
```

**IMPORTANT:** The timestamp variable contains hours in GMT or UTC and, therefore, will change to adapt to client's time zone or local time.



## 9 Credit inquiry

With a call to a URL (script) it is possible to learn the SMS credit for an existing messaging account. The connection is made in the same way that a HTTP/GET message is made.

```
https://[username]:[password]@api.labsmobile.com/balance.php
```

The result will be in the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<response>
  <messages>[sms_left]</messages>
</response>
```

**IMPORTANT:** The messaging platform will monitor calls to this service and will not allow (block) constant access. We recommend making credit inquiries only when necessary: before and/or after sending a message or when displaying the client's account properties.

## 10 Prices inquiry

With a call to a URL (script) it is possible to know the credits that a single sending will take depending on the country of delivery. The connection is made in the same way that HTTP/GET sending is made.

For all countries::

```
https://[username]:[password]@api.labsmobile.com/prices.php
```

For a particular country or countries specifying the ISO country code:

```
https://[username]:[password]@api.labsmobile.com/prices.php?
countries=FR,DE
```

The output format can be selected using the *format* variable and could have the value CSV (default), XML or JSON.

### 10.1 Output examples

#### CSV

```
FR,33,France,1.114
DE,49,Germany,1.8
```

#### XML

```
<?xml version="1.0" encoding="UTF-8"?>
<prices>
  <country>
    <isocode>FR</isocode>
    <prefix>33</prefix>
    <name>France</name>
    <credits>1.114</credits>
  </country>
  <country>
    <isocode>DE</isocode>
    <prefix>49</prefix>
    <name>Germany</name>
    <credits>1.8</credits>
  </country>
</prices>
```

#### JSON

```
{"FR":{"isocode":"FR","prefix":"33","name":"France","credits":1.114},"DE":
{"isocode":"DE","prefix":"49","name":"Germany","credits":1.8}}
```

# 11 Recommendations

In this section, we introduce 10 items to verify in every integration to ensure that every message from our SMS messaging platform is sent without a problem. All of the possible issues and errors are explained in detail in the integration manuals. However, these are 10 of the most common errors that we recommend you check.

**Mandatory fields.** The *message* fields, *msisdn* (recipient telephone numbers), and the corresponding authentication fields (user, and password) are mandatory.

**Message length.** The content of the text message must have a value that is not null and does not exceed the maximum limit of 160 characters for standard SMS messages (459 for SMSLong).

**Valid telephone numbers.** The phone numbers must be in numeric format and preceded by the country code. For messages sent to mobile devices in Spain, the numbers always begin with 346 or 247 followed by eight more digits.

**Capacity of the recipient.** The recipient field (TPOA) has a maximum capacity of 16 digits or 11 alphanumeric characters. The permitted characters are letters and numbers ([A-Z|a-z|0-9]).

**Invalid characters in the message.** The message field may only contain characters from the GSM 3.38 7-bit alphabet found in all manuals. We suggest converting some unsupported characters and disabling other unsupported or replaceable characters.

```
"á" => "a"  
"í" => "i"  
"ó" => "o"  
"ç" => "C"  
"ı" => "I"  
"¨" => ""
```

**Version and XML codification.** All technologies, except for HTTP/GET, use XML as the language for defining the SMS parameters. The version and codification alphabet must be specified in the first line. In addition to verifying that it corresponds to the actual messaging codification, in order to prevent invalid character errors and the escape of reserved characters:

```
< => &lt;  
> => &gt;  
& => &amp;  
" => &quot;  
' => &apos;
```

**Duplicate message filter.** Our platform filters duplicate messages: SMS messages with the same content sent to the same number within the same hour. The LabsMobile platform will not charge or send duplicate messages. These messages may be viewed in the WebSMS application under the label “duplicates”.

**Tests.** During the integration period, it is possible to send messages with the test parameter activated. In this way, clients can perform any type of test at no cost and verify the result in the WebSMS application.

**Traffic limits.** LabsMobile accounts have a limit per batch (messages in a single delivery, 10,000 by default) and a SMS limit per day (50,000 by default). If you would like to change these limits, please contact us.

**Security.** Once the basic integration is complete, we recommend applying additional security measures such as an IP filter or HTTPS encryption.

## 12 Glossary of terms

### XML

Is the abbreviation for eXtensible Markup Language. It's a extensible metalanguage of tags developed by W3C. It's a way of defining languages for a specific need. The SMSAPI of LabsMobile uses XML to define the format of a SMS message in the http/POST, SMTP (e-mail) technologies and WebService.

### MSISDN

Means Mobile Station Services Digital Network and it identifies a subscription on the GSM or UMTS net. Meaning, it identifies the subscription and it corresponds with the telephone number and the SIM card. It has a maximum length of 15 digits and it is composed of the country code and the member's number.

### ACK

The ACK notifications are the confirmations of delivery of the messages sent by the LabsMobile messaging platform, It notifies the exact moment on the SMS change of status.

There are three types of ACK notifications:

- *Gateway*: moment where the message has been validated and sent to the GSM net.
- *Operator*: moment where the local operator accepts the message and becomes responsible for its delivery.
- *Handset*: moment where the message gets to the mobile device. This ACK notification will not be made if the cell phone: is a valid mobile, it's turned off or out of signal, has the voice-mail full or if its in the period of portability.

### MT

The SMS-MT messages (Short message Mobile Terminated) are the ones that have a mobile device as destination. On this information all messages that are sent from the LabsMobile platform are considered SMS-MT.

### MO

The SMS-MO messages (Short message Mobile Originated) are the ones sent from a mobile device.

The destination can be for example a number associated with the LabsMobile messaging platform and that this one is able to redirect the message (via WebSMS, SMS, e-mail, http/GET, http/POST, WebService, etc...).

### UTF-8

It's a set of characters that can represent any Unicode character. It includes all the symbols used in latin and Anglo-Saxon languages.

This set of characters ( charset) is the one LabsMobile uses and the one that must be used in communicating with SMSAPI.

## **GSM**

It's the global system for the mobile communications (GSM, comes from the french *Groupe Special Mobile*). Through this technology of international reach, all SMS messages are sent to mobile devices.

## **TPOA**

Corresponds to the origin of the message or sender. The TPOA (*Transmission Path Originating Address*) in a message between two mobiles always contains the mobile number of the sender but with the LabsMobile messaging platform it can have any value respecting the maximum size (16 digits if numeric or 11 characters if alphanumeric).

It usually contains the name of the company that sends the message or the number that wishes to receive the response (InCode, SMSPremium or MSISN).

## **SSL**

The cryptographic protocol SSL (*Secure Sockets Layer*) ensures a secure connection through the Internet. This protocol can be used in all communications with the SMSAPI and the application WebSMS to ensure the privacy and non-vulnerability of the authentication of the account.

## **API**

Means *Application Programming Interface* and it establishes rules and specifications to communicate with the LabsMobile messaging platform from any application. There are functions developed from various standard technologies (http/POST, http/GET, Webservice, e-mail) to facilitate the integration with any Web, portal, CRM, Desktop application, etc...

## **http/GET**

HTTP is the protocol of communication between web pages. The LabsMobile messaging platform accepts HTTP/GET calls to send messages. This type of GET invocation sends the parameters in the same URL.

## **http/POST**

HTTP is the protocol of communication between web pages. The LabsMobile messaging platform accepts http/POST calls to send messages. This type of POST invocation sends the parameters of the invocation in the request body and not in the URL.

## **WebService**

A web or Webservice is a group of protocols and standards for the data Exchange between applications. The LabsMobile messaging platform has published Webservice for the delivery of messages with all available options.

## 13 GSM 3.38 7-bit alphabet

A list of the characters included in the standard GSM 03.38 7-bit alphabet, supported by the LabsMobile platform in the message and sender field for SMS messages is presented below.

Hex	Descripción	Caracter	ISO-8859-1
0x00	COMMERCIAL AT	@	64
0x01	POUND SIGN	£	163
0x02	DOLLAR SIGN	\$	36
0x03	YEN SIGN	¥	165
0x04	LATIN SMALL LETTER E WITH GRAVE	è	232
0x05	LATIN SMALL LETTER E WITH ACUTE	é	233
0x06	LATIN SMALL LETTER U WITH GRAVE	ù	249
0x07	LATIN SMALL LETTER I WITH GRAVE	ì	236
0x08	LATIN SMALL LETTER O WITH GRAVE	ò	242
0x09	LATIN CAPITAL LETTER C WITH CEDILLA	Ç	199
0x0A	LINE FEED		10
0x0B	LATIN CAPITAL LETTER O WITH STROKE	Ø	216
0x0C	LATIN SMALL LETTER O WITH STROKE	ø	248
0x0D	CARRIAGE RETURN		13
0x0E	LATIN CAPITAL LETTER A WITH RING ABOVE	Å	197
0x0F	LATIN SMALL LETTER A WITH RING ABOVE	å	229
0x10	GREEK CAPITAL LETTER DELTA	Δ	
0x11	LOW LINE	_	95
0x12	GREEK CAPITAL LETTER PHI	Φ	
0x13	GREEK CAPITAL LETTER GAMMA	Γ	
0x14	GREEK CAPITAL LETTER LAMBDA	Λ	
0x15	GREEK CAPITAL LETTER OMEGA	Ω	
0x16	GREEK CAPITAL LETTER PI	Π	
0x17	GREEK CAPITAL LETTER PSI	Ψ	

Hex	Descripción	Caracter	ISO-8859-1
0x18	GREEK CAPITAL LETTER SIGMA	Σ	
0x19	GREEK CAPITAL LETTER THETA	Θ	
0x1A	GREEK CAPITAL LETTER XI	Ξ	
0x1B	ESCAPE TO EXTENSION TABLE		
0x1B0A	<b>FORM FEED*</b>		<b>12</b>
0x1B14	<b>CIRCUMFLEX ACCENT*</b>	^	<b>94</b>
0x1B28	<b>LEFT CURLY BRACKET*</b>	{	<b>123</b>
0x1B29	<b>RIGHT CURLY BRACKET*</b>	}	<b>125</b>
0x1B2F	<b>REVERSE SOLIDUS (BACKSLASH) *</b>	\	<b>92</b>
0x1B3C	<b>LEFT SQUARE BRACKET*</b>	[	<b>91</b>
0x1B3D	<b>TILDE*</b>	~	<b>126</b>
0x1B3E	<b>RIGHT SQUARE BRACKET*</b>	]	<b>93</b>
0x1B40	<b>VERTICAL BAR*</b>		<b>124</b>
0x1B65	<b>EURO SIGN*</b>	€	<b>164 (ISO-8859-15)</b>
0x1C	LATIN CAPITAL LETTER AE	Æ	198
0x1D	LATIN SMALL LETTER AE	æ	230
0x1E	LATIN SMALL LETTER SHARP S (German)	ß	223
0x1F	LATIN CAPITAL LETTER E WITH ACUTE	É	201
0x20	SPACE		32
0x21	EXCLAMATION MARK	!	33
0x22	QUOTATION MARK	"	34
0x23	NUMBER SIGN	#	35
0x25	PERCENT SIGN	%	37
0x26	AMPERSAND	&	38
0x27	APOSTROPHE	'	39
0x28	LEFT PARENTHESIS	(	40
0x29	RIGHT PARENTHESIS	)	41



Hex	Descripción	Caracter	ISO-8859-1
0x2A	ASTERISK	*	42
0x2B	PLUS SIGN	+	43
0x2C	COMMA	,	44
0x2D	HYPHEN-MINUS	-	45
0x2E	FULL STOP	.	46
0x2F	SOLIDUS (SLASH)	/	47
0x30	DIGIT ZERO	0	48
0x31	DIGIT ONE	1	49
0x32	DIGIT TWO	2	50
0x33	DIGIT THREE	3	51
0x34	DIGIT FOUR	4	52
0x35	DIGIT FIVE	5	53
0x36	DIGIT SIX	6	54
0x37	DIGIT SEVEN	7	55
0x38	DIGIT EIGHT	8	56
0x39	DIGIT NINE	9	57
0x3A	COLON	:	58
0x3B	SEMICOLON	;	59
0x3C	LESS-THAN SIGN	<	60
0x3D	EQUALS SIGN	=	61
0x3E	GREATER-THAN SIGN	>	62
0x3F	QUESTION MARK	?	63
0x40	INVERTED EXCLAMATION MARK	¡	161
0x41	LATIN CAPITAL LETTER A	A	65
0x42	LATIN CAPITAL LETTER B	B	66
0x43	LATIN CAPITAL LETTER C	C	67
0x44	LATIN CAPITAL LETTER D	D	68

Hex	Descripción	Caracter	ISO-8859-1
0x45	LATIN CAPITAL LETTER E	E	69
0x46	LATIN CAPITAL LETTER F	F	70
0x47	LATIN CAPITAL LETTER G	G	71
0x48	LATIN CAPITAL LETTER H	H	72
0x49	LATIN CAPITAL LETTER I	I	73
0x4A	LATIN CAPITAL LETTER J	J	74
0x4B	LATIN CAPITAL LETTER K	K	75
0x4C	LATIN CAPITAL LETTER L	L	76
0x4D	LATIN CAPITAL LETTER M	M	77
0x4E	LATIN CAPITAL LETTER N	N	78
0x4F	LATIN CAPITAL LETTER O	O	79
0x50	LATIN CAPITAL LETTER P	P	80
0x51	LATIN CAPITAL LETTER Q	Q	81
0x52	LATIN CAPITAL LETTER R	R	82
0x53	LATIN CAPITAL LETTER S	S	83
0x54	LATIN CAPITAL LETTER T	T	84
0x55	LATIN CAPITAL LETTER U	U	85
0x56	LATIN CAPITAL LETTER V	V	86
0x57	LATIN CAPITAL LETTER W	W	87
0x58	LATIN CAPITAL LETTER X	X	88
0x59	LATIN CAPITAL LETTER Y	Y	89
0x5A	LATIN CAPITAL LETTER Z	Z	90
0x5B	LATIN CAPITAL LETTER A WITH DIAERESIS	Ä	196
0x5C	LATIN CAPITAL LETTER O WITH DIAERESIS	Ö	214
0x5D	LATIN CAPITAL LETTER N WITH TILDE	Ñ	209
0x5E	LATIN CAPITAL LETTER U WITH DIAERESIS	Ü	220
0x5F	SECTION SIGN	§	167

Hex	Descripción	Caracter	ISO-8859-1
0x60	INVERTED QUESTION MARK	¿	191
0x61	LATIN SMALL LETTER A	a	97
0x62	LATIN SMALL LETTER B	b	98
0x63	LATIN SMALL LETTER C	c	99
0x64	LATIN SMALL LETTER D	d	100
0x65	LATIN SMALL LETTER E	e	101
0x66	LATIN SMALL LETTER F	f	102
0x67	LATIN SMALL LETTER G	g	103
0x68	LATIN SMALL LETTER H	h	104
0x69	LATIN SMALL LETTER I	i	105
0x6A	LATIN SMALL LETTER J	j	106
0x6B	LATIN SMALL LETTER K	k	107
0x6C	LATIN SMALL LETTER L	l	108
0x6D	LATIN SMALL LETTER M	m	109
0x6E	LATIN SMALL LETTER N	n	110
0x6F	LATIN SMALL LETTER O	o	111
0x70	LATIN SMALL LETTER P	p	112
0x71	LATIN SMALL LETTER Q	q	113
0x72	LATIN SMALL LETTER R	r	114
0x73	LATIN SMALL LETTER S	s	115
0x74	LATIN SMALL LETTER T	t	116
0x75	LATIN SMALL LETTER U	u	117
0x76	LATIN SMALL LETTER V	v	118
0x77	LATIN SMALL LETTER W	w	119
0x78	LATIN SMALL LETTER X	x	120
0x79	LATIN SMALL LETTER Y	y	121
0x7A	LATIN SMALL LETTER Z	z	122

Hex	Descripción	Caracter	ISO-8859-1
0x7B	LATIN SMALL LETTER A WITH DIAERESIS	ä	228
0x7C	LATIN SMALL LETTER O WITH DIAERESIS	ö	246
0x7D	LATIN SMALL LETTER N WITH TILDE	ñ	241
0x7E	LATIN SMALL LETTER U WITH DIAERESIS	ü	252
0x7F	LATIN SMALL LETTER A WITH GRAVE	à	224

\* Characters that are codified with two bytes that take up two spaces within an SMS.