mobiyo

Integration Documentation
SMS Subscription — HTTP Routing

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INTRODUCTION

The information contained in this document describes the interface between the Allopass SMS platform and other computer systems and applications. The interface is based on Web Services, of which there are several types: REST, XML-RPC, SOAP, etc., Allopass offers an API based on a widespread system: REST to connect to its SMS Centre (SMSC).

1. Who is this document aimed at ?

This document is intended for anyone involved in the design and implemntation of applications on computer systems that need to interact with the SMSC.

Knowledge and prerequisites ;

- HTPP protocol (http://en.wikipedia.org/wiki/Hypertext_Transfer_Protocol)
- An understanding of web servicess (http://www.w3schools.com/webservices),
- Knowing how th handle a file or a XML steam (http://www.w3schools.com/xml)
- How to master programming language allowing the use of web services
- Hosting a web server

2. Technical support

This document is sufficient to allow a developer to use Mobiyo's customisable services in the development of an application or APIs, to interface with the SMSC. It is advisable to read this guide in its entirety before undertaking any development.

However, if the developer of the application encounters a problem that cannot be solved by this document, then IT support is available.

When any contact with the support team is made, then certain information will be requested, including the timestamps of the various tests carried out. In order to process the request quickly, it is necessary to have the maximum of information about the test environment and any furher information that will be useful in the diagnosis of the problem.

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PRESENTATION

3. What is "SMS+ Subscription" ?

SMS +[1] subscription is a method of payment for monetizing a service over time, making it sustainable and maintaining a relationship with its customers. Simple, universal and quick, the subscription and delivery of content is via SMS and is suitable for all mobile users. With no time commitment, the purchase begins with a registration, then the periodic delivery of content for the duration of the subscription. Easy to access thanks to a short number, this payment method multiplies the possible service offerings. The merchant can choose the price, the manner and frequency of the billing for his service[2].

Sample application: Coaching, Information services, Media, Games, Social Networks...

4. What is a routing operator ?

The routing operator Mobiyo aggregates several operators worldwide around its SMS processing centre (SMSC) and facilitates the use of its resources through its web services. In this way, SMS are sent to merchants in a uniform manner through a HTTP request. The purpose of this method is to allow merchants to interact with SMS from their own platform, to be autonomous, and to offer a personalized, added value service to its customers.

5. What is « HTTP routing » ?

'HTTP routing' is a method of communication between the Allopass SMSC called Mobiyo and the platform managed by the merchant using the principle of a bi-directional exchange, where the management of renewals is delegated to the merchant.

The merchant is notified of each time a new subscriber registers, of renewals and unsubscriptions through a web URL, which acknowledges these notifications. The merchant will call the Mobiyo platform web service to carry out subscription renewals according to a predefined schedule.

This model requires a solid knowledge of event management and the need to have an architecture suited to the needs of this service to manage all of the cases produced from a renewal and operator restrictions. Mobiyo offers an alternative with a subscription service with notifications, where the processing engine is managed in the SMSC, and the merchant only deploys URLs to be notified at each stage of a subscription.

6. What do I need ?

A server to host the processing scripts accessible from a public URL. What will be requested of the merchant:

- A public URL that points to their processing scripts that Mobiyo will use for the notification of the messages.
- -Authorise the Allopass IPs to access the aforementioned URL (the Allopass IPs will be provided once the contract has been signed)

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2.5. General operation

General operation may differ from one country to another. This section describes the progress of a generic subscription. Your account executive is at your disposal for any further information on the specificities and legal obligations of each service.

The merchant registers a subscription service on the Mobiyo SMS interconnection. *Sample service: Astrology*

1. The user sends an SMS: The service is identified by the first word before a space — called the *key word* — contained in the SMS, which in this case is: *HORO*. This first SMS corresponds to the registration stage of the service.

> *Send 'HORO ARIES' to 78071*
>
> *SMS sent at **10am, Saturday 1 January***

ARIES corresponds to an extension of the service, where the customer wants to receive his horoscope every week, corresponding to his astrological sign

2. The user receives a request to confirm the subscription (*opt-in SMS*) and the user must confirm his subscription, whereupon he gets a message that sets out the service to which he has subscribed and its cost. They must confirm with a generic word (varies by country)

> *To confirm your subscription to the HORO service for 4 euros/week, please answer with OK (+ price)*

3. The user confirms his subscription. The user responds to the confirmation of the subscription by sending the keyword requested here: OK

"OK"

4. The user's subscription is confirmed. The subscription request of the user has been registered, and the subscription can start. Depending upon the configuration of the service, they start to receive the paid for content by SMS (MT).

> *"HORO: Welcome to the Aries HORO service, your request has been registered - FREE"*
>
> *-- SMS MT sent at 10:02 Saturday 1 January*
>
> *"HORO: Lost tone? Or perhaps you're in Olympic form… Aries are going to shine this week. Work: 3/5 - Love: 4/5 - Finance: 4/5. (+ price)"*
>
> *-- SMS MT sent at 10:02 Saturday 1 January*
>
> *"HORO: Aries, you're going to fall in love today... but then there's nothing really new there. "True love will happen later for you (+ price)"*
>
> *-- SMS sent at 10am, Saturday 8 January*

5.The user wants to unsubscribe. By simply sending the word STOP, the user can unsubscribe according to the configurations; it may be necessary to specify the service from which they are unsubscribing.

> *"STOP"*

The user receives confirmation they have unsubscribed

> *HORO: Your unsubscribe request has been taken into account. Thank you for using our services - FREE*

7. Notification process

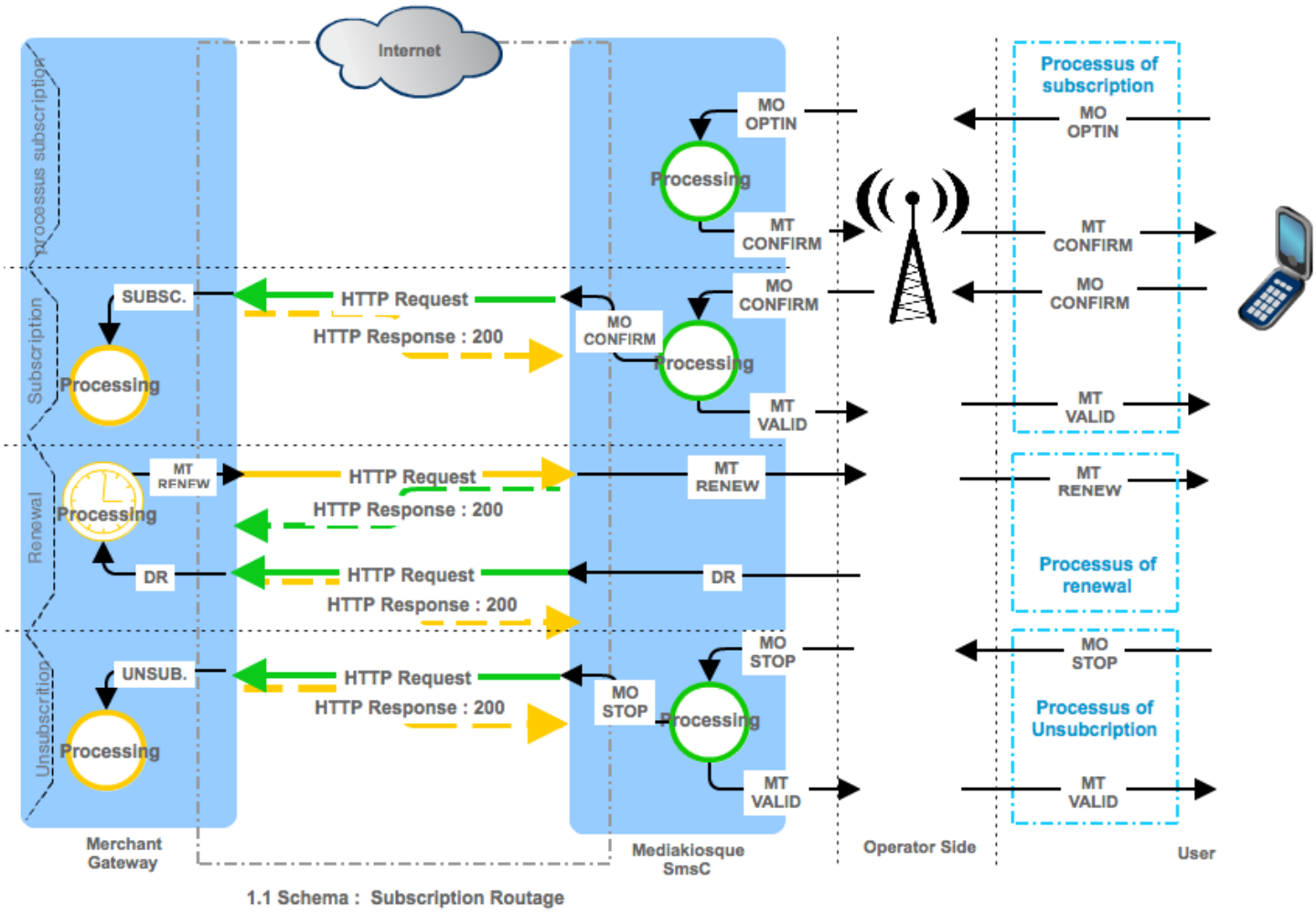
The merchant is notified on their URL upon receipt :

- *of the SMS (MO OPTIN) correspondng to the registration confiirmation for the service*

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- *of the SMS (MO STOP) corresponding to the confirmation they have unsubscribed from the service.*

The merchant uses a Mobiyo seb service to send DR SMS (MT RENEW)issued from the SMS (MT RENEW) setting out whether renewal was successful or not



1.1 Schema : Subscription Routage

8. Renewal process

The merchant carries out renewals from their own platform and must put in place transmission consistent with that declared. In instances of excess from the merchant, the request will be rejected by the SMSC.

9. Option : personnalisation du SMS

SMS MT CONFIRM and VALID corresponding to the validation and confirmation of the registration and confirmation of unsubscribing, can be customized according to the service statement in each country and of each operator.

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Registeration (MO OPTIN)

Upon receipt of a request for registration to a subscription, Mobiyo launches the registration process; once the subscription is confirmed, Mobiyo notifies the merchant on the configured url.

10. Mobiyo notifies the merchant

The Mobiyo SMSC contacts the merchant's URL and transfers *xml data* to them through a variable HTTP and information related to the registration request for the targeted service via the POST or GET method in XML format.

> It is important that the merchant's script has a short response time: the script must fulfil the notification then carry out the necessary processes.
>
> Mobiyo will carry out a new notification of the same SMS (MO OPTIN) in instances of non-response or badly formatted responses, up to five times before failing.
>
> It is recommended that the merchant incorporates a lock to prevent the processing of the same message. This means that the merchant should check well **that the same transaction identifier is not processed twice.**

10.1. URL of the service

Example of the url that the merchant must deploy on their service to receive notifications. https://mywebsite.com/sms_subscription.php

10.2. Parameters of the query

Parameter	Format	Description	Example
moid	digital	Unique identifier for MO OPTIN (bigint).	1000000000001
subid	digital	Unique identifier for subscription (bigint).	2000000000001
mcc	digital	International code for the country of the operator of the user responsible for sending the SMS	208 for the France
mnc	digital	International code for the network of the operator of the user responsible for sending the SMS	01 for Orange France 10 for SFR France
number	text	Telephone number of the user; depending on the country, it could be an alias	Alias or local number
content	text	Message sent by the user (*optional encapsulation in a CDATA section*)	MEDIUM Aries
shortcode	digital	Number of the destination to which the user has sent his message.	78071
keyword	text	Key word registration	MEDIUM
action	text	Describes the stage of the subscription	confirmation
login/password	Text	Identifier that the merchant wants Mobiyo to use to authenticate	

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		– non-mandatory, highly recommended.	

Example of a request received by the merchant

```
xmldata =
<sms>
 <login>smsc_Mobiyo</login>
 <password>XghY767</password>
 <mo>
  <moid>10000000000001</moid>
  <subid>20000006677001</subid>
  <action>confirmation</action>
  <number>321782726120</number>
  <mcc>208</mcc>
  <mnc>01</mnc>
  <shortcode>78071</shortcode>
  <content>HORO</content>
 </mo>
</sms>
```

11. Response that the merchant's script must return to Mobiyo

It is necessary to check if the ***moid*** has already been processed. If the merchant's site slows down, the notification from Mobiyo could fail (beyond 5 seconds, Mobiyo considers the notification to have failed due to the response time being too long). In this case, the Mobiyo SMSC will again attempt to send the same message to the merchant, who might nevertheless, have processed it at the time of the previous notification; it remains up to the merchant to pay for the new notification and to process it in error.

11.1. Description of the response expected by Mobiyo

The HTTP code of the *Header* must be equal to 200.

Parameter	Format	Description	Example
status	boolean	Response status	0 or 1
error	text	In the case of an error, it contains the description of the error.	Already Processed Service Not Found

3.2.2. Status

Value	Description	Context
0	OK	The new message has been taken into account.
1	Failure	An error occurred during initialisation of the transaction.

Renewal (MT RENEW)

After the processing of the SMS (MO OPTIN) notified by Mobiyo, the merchant can trigger a user description. He proceeds by sending an SMS (MT RENEW) from the web service at his disposal.

12. Mobiyo notifies the merchant

The merchant contacts a Mobiyo SMSC web service to send the SMS renewal content. The information is sent using the POST or GET method and in XML format.

> The SMSC acknowledges the message with an HTTP 200 response containing a transaction reference (trx_id) in the body of the header. It is advisable to keep this reference as it will be asked for if you need to request support.

12.1. URL

Example of the url that the merchant must call from his script, to send an SMS

https://ws.smsc.mediakiosque.com/sendmt_renew/

12.2. Expected Parameters in the query

Parameter	Format	Description	Example
login	text	Technical login credentials	
password	text	Password for the login credentials	
msisdn	digital	Number of alias of the user	
mcc	digital	International code for the country of the destination operator	208 for France
mnc	digital	International code for the network of the user's operator responsible for sending the SMS	01 for Orange France 10 for SFR France
content	text	Contains the text of the message to send to the user	"Horo : here is the preview of the week"
subid	digital	Unique identifier for subscription	200000010001
shortcode	digital	Number of the destination to which the user has sent his message	81051

The parameters must be avoided in accordance with the specifications of the http protocol (RFC 3986) if the GET method is used.

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13. Response that the Mobiyo script returns to the merchant

It is advisable to keep a note of the ID of the transaction (trx_id) returned by the web service, as it will be used during the notification of acknowledgement of receipt.

13.1. Description of the response expected by Mobiyo

The HTTP code of the *Header* must be equal to 200.

Parameter	Format	Description
status	boolean	Response status
error	digital	In the case of an error, it contains an error code
Message	Text	In the case of tan error, it contains the description of the error

13.2. Status

Value	Description	Context
0	OK	The new message has been properly received by Mobiyo SMSC
1	Failure	An error occurred during the initialisation of the transaction. The *message* tag describes the cause of the error. It is possible to replay the request once corrected.

Example of calling the URL with the GET method : (url encoder)

https://ws.smsc.mediakiosque.com/sendmt_renew/?login=myid&password=mypasswd&msisdn=336733112332332&shortcode=81015&mcc=208&mnc=10&content=my+content&subid=200010001

Example response returned by Mobiyo

```
<?xml version="1.0" encoding="utf-8" ?>
<root>
<results>
<result>
<status>OK</status>
<code>00</code>
<trx_id>100000000001</trx_id>
<result>
<results>
</root >
```

If the message is rejected by the Mobiyo SMSC

```
<?xml version="1.0" encoding="utf-8" ?>
<root>
<errors>
<error>
<status>ERROR</status>
<code>04</code>
```


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```
<message>service not found</message>
<error>
<errors>
</root >
```


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Acknowledgment of receipt (DR)

Mobiyo notifies the merchant to inform them of the status of the reception of the SMS (MT--RENEW) by the user's terminal in the form of an acknowledgement of receipt through the URL configured to this end.

> It is recommended that the merchant optimizes their renewal attempts policy and to allow 24 hours between each failure.

14. Mobiyo notifies the mechant

The Mobiyo SMSC contacts the merchant's URL and transfers xml data to them through a variable HTTP and the result of a subscription renewal attempt via the POST or GET method in XML format (to be defined from the moment the service is integrated).

> It is important that the merchant's script has a short response time: the script must fulfil the notification then carry out the necessary processes. Mobiyo will carry out a new notification in instances of non--response or badly formatted responses, up to five times before failing. It is recommended that the merchant incorporates a lock to prevent the processing of the same message. This means that the merchant should check closely that the same transaction identifier is not processed twice.

14.1. URL

Example of the url that the merchant must deploy on their service to receive notifications. https://mywebsite.com/sms_renew.php

14.2. The parameters of the query

Parameters	Format	Description	Example
mtid	digital	Unique identifier for MT RENEW (bigint)	1000000023001
subid	digital	Unique identifier for subscription (bigint)	2000000000001
mcc	digital	International code for the country of the user's operator responsible for sending the SMS	208 for France
mnc	digital	International code for the network of the user's operator responsible for sending the SMS	01 for Orange France 10 for SFR France
number	text	Telephone number of the user depending on the country. It can be an alias.	Alias or local number
shortcode	digital	Number of the destination to which the user has sent his messsage	78071
keyword	text	Keyword at the origin of the registration	MEDIUM
action[3]	text	Describes the stage of the subscription	bill / notbill
login/password	Text	Identifier that the merchant wants Mobiyo to use to authenticate — non mandatory, highly recommended	

Example of a request received by the merchant

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```
xmldata =
<sms>
 <login>smsc_Mobiyo</login>
 <password>XghY767</password>
 <dr>
  <mtid>10000006677001</mtid>
  <subid>20000006677001</subid>
  <action>bill</action>
  <number>321782726120</number>
  <mcc>208</mcc>
  <mnc>01</mnc>
  <shortcode>78071</shortcode>
 </dr>
</sms>
```

15. Response that the merchant's script must return to Mobiyo

It is necessary to check if the mtid has already been processed. If the merchant's site slows down, the notification from Mobiyo could fail (beyond 5 seconds, Mobiyo considers the notification to have failed due to the response time being too long). In this case, the Mobiyo SMSC will again attempt to send the same message to the merchant, who might nevertheless, have processed it at the time of the previous notification; it remains up to the merchant to pay for the new notification and to process it in error.

15.1. Description of the response expected by Mobiyo

The HTTP code of the Header must be equal to 200

Parameter	Format	Description
status	Boolean	Response status (0 or 1)
error	text	In the case of an error, it contains the description of the error

15.2. Status

Value	Description	Context
0	OK	The new message has been taken into account
1	Failure	An error occurred during the initialisation of the transaction

The status 0 or 1 is an acknowledgement of the transaction. The transaction is considered to be a failure in the instance of non-response, a HTTP return different by 200, or an unexpected response format.

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Unsubscribe (MO STOP)

The subscriber has the option to unsubscribe simply by sending STOP to the service. Upon receipt of MO STOP, Mobiyo will forward it to the merchant on the configured URL.

16. Mobiyo notifies the merchant

The Mobiyo SMSC contacts the merchant's URL and transfers *xml da*ta to them through a variable HTTP and information related to the request to unsubscribe from the targeted service via the POST or GET method in XML format.

> It is important that the merchant's script has a short response time: the script must fulfil the notification then carry out the necessary processes.
>
> Mobiyo will carry out a new notification of the same SMS (MO STOP) in instances of non-response or badly formatted responses, up to five times before failing.
>
> It is recommended that the merchant incorporates a lock to prevent the processing of the same message. This means that the merchant should check closely **that the same transaction identifier is not processed twice.**

16.1. URL

Example of the url that the merchant must deploy on their service to receive notifications :n https://mywebsite.com/sms_unsubscription.php

16.2. Parameters of the query

Paramètres	Format	Description	Exemple
moid	digital	Unique identifier for MO OPTIN (bigint).	1000000000001
subid	digital	Unique identifier for subscription (bigint).	2000000000001
mcc	digital	International code for the country of the user's operator responsible for sending the SMS	208 for the France
mnc	digital	International code for the network of the user's operator responsible for sending the SMS	01 for Orange France 10 for SFR France
number	text	Telephone number of the user; depending on the country, it could be an alias (*substitution of the telephone number by a series of numbers).*	Alias or local number
shortcode	digital	Number of the destination to which the user has sent his message.	78071
keyword	text	Keyword at the origin of the registration	MEDIUM
action	text	Describes the stage of the subscription	stop
login/password	Text	Identifier that the merchant wants Mobiyo to use to authenticate *– non-mandatory, highly recommended.*	

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Exemple of a request received by the merchant

```
xmldata =
<sms>
 <login>smsc_Mobiyo</login>
 <password>XghY767</password>
 <mo>
  <moid>10000000000001</moid>
  <subid>20000006677001</subid>
  <action>stop</action>
  <number>321782726120</number>
  <mcc>208</mcc>
  <mnc>01</mnc>
  <shortcode>78071</shortcode>
 </mo>
</sms>
```

17. Response that the merchant's script must return to Mobiyo

It is necessary to check if the **moid** has already been processed. If the merchant's site slows down, the notification from Mobiyo could fail (beyond 5 seconds, Mobiyo considers the notification to have failed due to the response time being too long). In this case, the Mobiyo SMSC will again attempt to send the same message to the merchant, who might nevertheless, have processed it at the time of the previous notification; it remains up to the merchant to pay for the new notification and to process it in error.

17.1. Description of the response expected by Mobiyo

The HTTP code of the *Header* must be equal to 200.

Parameter	Format	Description
status	boolean	Response status
error	text	In the case of an error, it contains the description of the error.

17.2. Status

Value	Description	Context
0	OK	The new message has been taken into account.
1	Failure	An error occurred during initialisation of the transaction.

The status 0 or 1 is an acknowledgement of the transaction. The transaction is considered to be a failure in the instance of non-response, a HTTP return different by 200, or an unexpected response format.

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Appendix

18. Lexicon

MO (Mobile Originated): SMS sent by the user to the merchant

MT (Mobile Terminated): SMS sent by the merchant to an end user.

DR or AR: (Acknowledgement of receipt): State of the SMS-MT sent to the user.

OPTIN: Option to register for the service. Designates the message sent to the user of the service to obtain their consent to register.

ALIAS: Series of numbers that substitutes the mobile subscriber's telephone number.

HTTP: Communication protocol using the internet network.

POST/GET: Method of transferring data through the HTTP protocol.

URL: Location address of a resource (script, etc.) through a network (internet, etc.).

MCC/MNC: Mobile Country and Network Code is an international nomenclature to identify an operator in the country of a user. Example: 20801 Orange France.

19. Content and legislation

The resources used through SMSC are subject to the laws in force in the countries covered, among which, is the obligation to display legal information in the content of the SMS (MT) and equally in the support media used for promoting the service.

The price and the name of the Publisher of the service form part of this obligatory information and must be identifiable to the user of the service.

Mobiyo reserves the right to tattoo the message sent to the user, which reduces the number of characters available for the content of the MT.

Mobiyo reserves the right to restrict the service without prior notice in the event of non-compliance with the contract established between the parties, or the rules of professional conduct and in one of the following cases:

- Total or partial absence / error / theft of sender ID
- Total or partial absence / error / inaccuracy of the tariff for the means of access to the service
- Total or partial absence / error / inaccuracy of the commercial name of the service
- Unauthorised modification of the "identification of the sender" field of an SMS-MT
- Unauthorised alteration of the nature of the service.
- Absence of valid consent of the recipient
- Sending of SMS-MT to users who do not correspond to the service category that has been declared

20. Length of the message5 and encoding

The supported encoding is UTF8. This encoding is not to be confused with the encoding of the communication protocol. This here is the encoding of the message to be sent to the user. Each operator uses specific encoding for communication with their partners. The same message shall not be interpreted in the same way from one operator to another. In general, the table of symbols used is GSM, encoded in 7-bit, yet the SMS memory size is 140B which allows up to 160 characters, however some characters can count for two, which reduces the size of the final message. For example the euro symbol according to the encodings can be interpreted as 1 or 2 bits. Extending the length of the SMS is possible in accordance with the technical limitations of operators. For further information, please contact your account executive.

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21. To Note

The subscription services are regulated in number and frequency of sendings according to operators and countries, to match the given tariffs. Any breach of these rules is likely to result in a suspension of service and associated transfers.

Mobiyo channels the flows to redistribute them to the partner operators. Despite Mobiyo's large capacity to absorb commercial flows, the deadline for receipt of messages by the end-user is a function of the storage and accessibility of the operator's platform and that of the user's mobile terminal on the GSM network, which has the effect of deferring the receipt of the message from the date of dispatch.

Mobiyo reserves the right to reduce the throughput of access to its services within the context of the proper communal functioning of the platform. The merchant must be able to block all incoming streams to SMSC Mobiyo that may harm ALLOPASS. The merchant must have a mechanism for regulating the incoming streams to the SMSC Mobiyo, allowing the flow to be limited to 100 requests per second.

.[1] Operators do not offer all the subscription services in their premium SMS service. This service is offered according to geographical areas. *For more information on the availability of this service, please contact your account executive.*

.[2] The subscription service is regulated on the frequency and the number of sendings to the same user depending on a tariff table. These rules vary from one operator to another and from one country to another. *Please contact your account executive to find out more details on the solution that is adapted to your needs.*

.[3] A renewal is carried out once safe receipt of the contents is confirmed by the user terminal. The action has the value of 'bill' or 'notbill' in the event of failure. Mobiyo will attempt to renew the subscription for 180 days, beyond which subscription will be closed.

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Pour toute question, contactez le support ou votre chargé de compte

L'équipe Mobiyo

www.mobiyo.com
More ways to pay

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Pôle Produit
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75012 Paris — France

SAS au capital de 2 486 196€, RCS Paris
824 638 209, N° TVA Intracommunautaire :
FR61 824 638 209, Code APE : 6201Z

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