REST Integration
Version 2.1

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Introduction

REST Gateway platform allows users to send messages via HTTP or HTTPS in a simple and fast way. It can also send more than 500 messages in a single request.

To access your statistics and invoicing data you can enter the website https://www.nrsgateway.com with your user log-in.

This documentation describes the required and optional parameters to use all possibilities for sending SMS messages following the REST specifications. Both requests and responses are in JSON REST API format, making it easy to use the API with any programming language.

TECHNICAL PLATFORM

Request to send SMS

Every request made will be included in the header of the http request the client authentication. To this purpose it is used the basic access authentication of HTTP. Combining the string "user password" and encoding it within base64 construct the authorization header. To this chain is prefixed the "Basic Authorization" chain
For example, for the user "myuser" and the password "mypass", the resulting header would be:

Authorization: Basic bWl1c2VyOm1pcGFzcw==

The available configuration options, the URL that should be called, and the parameters supported will be detailed below.

To create the URL, the client must make a POST call to the following address:

https://gtw.nrsgateway.com/rest/message

JSON request:

Example of basic request:

{"to":["34666555444"],"text": "text message","from":"msg"}

For possible meters:

- **text:** message of the text. At most you can have 160 characters if you do not specify that the message is multi-part (see 'parts' parameter). The text must be encoded in UTF-8

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- **to:** mobile phone number of the message recipient. You must include the prefix (e.g.: In Spain 34666666666). This field allows you to specify multiple recipients, for all numbers in an array must be included.
- **from**: Text Sender, this label will consist of 15 numbers or 11 alphanumeric .
- **coding (optional):** Possible values are "gsm" and "utf-16". The value "gsm" for normal deliveries with GSM7 coding and 160 characters per message and the value "utf-16" for UCS2 coding (UTF16) and 70 characters per message. If not specified, the default value is "gsm"
- **fSend (optional):** Date message sent. If you need to send scheduled messages, the delivery date can be specified indicating the date in the following format YYYYmmddHHiiss indicating the date format (eg: 20130215142000 would be February 15, 2013 at 14:20). If sending is immediate, this parameter does not have to be specified.
- **fExp (optional):** Message expiration date in UTC. The date must be specified in UTC time (GMT + 0). Format YYYYmmddHHiiss. e.g. 20130215142000 would be 15 February 2013 at 14:20:00.
- **parts (optional):** Indicates the maximum number of parts in which the message to be sent will be divided. This variable is set to 1 by default, so if it is not specified and a message over 160 characters for encoding "gsm" is sent, the message will fail. Keep in mind that concatenated messages can only be 153 characters per party and each part is billed as one sending. The server will only use the minimum necessary parts for sending text even if the specified number of parts is greater than necessary. If the number of parts is less than that required for sending the text, the sending will fail with error 105.
- **trsec (optional)**: Boolean type. With the "false" value the server does not change any character in the message; this is the default value. With the value "true", server handles to modify the common invalid characters in GSM7 to valid characters with the following translation table: 'á' => 'a', 'í'=>'i', 'ó'=>'o', 'ú'=>'u', 'ç'=>'Ç', 'Á'=>'A', 'Í'=>'I', 'Ó'=>'O', 'Ú'=>'U', 'À'=>'A', 'È'=>'E', 'Ì'=>'I', 'Ò'=>'O', 'Ù'=>'U', 'º' => '', 'ª' => '', 'Õ' => 'O', 'õ' => 'o', 'â' => 'a', 'ê' => 'e', 'î'=>'i', 'ô'=>'o', 'û'=>'u', 'Â'=>'A', 'Ê'=>'E', 'Î'=>'I', 'Ô'=>'O', 'Û'=>'U', 'ã' => 'a', 'Ã' => 'A'

Example of CURL request:

```
curl -X POST \
-H "Content-Type: application/json" \
-H "Accept: application/json" \
-H "Authorization: Basic bWl1c2VyOm1pcGFzcw==" \
-d "{\"to\":[\"34666555444\"],\"text\":\"text message\",\"from\":\"msg\"}" \
https://gtw.nrsgateway.com/rest/message
```

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Example of PHP request

```php
<?php

$post['to'] = array('34666555444');
$post['text'] = "text message";
$post['from'] = "msg";

$user ="miuser";
$password = 'mipass';

$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, "https://gtw.nrsgateway.com/rest/message");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
curl_setopt($ch, CURLOPT_POST, 1);
curl_setopt($ch, CURLOPT_HEADER, 1);
curl_setopt($ch, CURLOPT_POSTFIELDS, json_encode($post));
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
   "Accept: application/json",
   "Authorization: Basic ".base64_encode($user.":".$password)
));

$result = curl_exec ($ch);

?>
```

The password (password) and the client code (username) will be provided by the company. It should be mentioned that in order to increase system security, the customer must specify the IP from where it will connect; only sending from the IP specified by the customer will be allowed.

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Response status codes

The API REST can respond with the following HTTP states:

State code	Description	Details
202	Accepted	The message has been accepted for further processing
207	Multi-status	The message has been accepted for further processing, but some recipients are incorrect.
400	Bad request	The request contains errors, the message has not been accepted
401	Unauthorized	Failure customer authentication
402	Payment required	The customer does not have enough balance
500	Internal server error	The server has an internal error

In the body of the HTTP response is delivered a JSON with the result details; these are the possible answers:

Status code 202:
[{"accepted":true,"to":"34666555444","id":"102648819"}]

Status code 207:
[{"accepted":true,"to":"34626690739","id":"102648820"},{"accepted":false,"to":"34","error":{"code":102,"description":"No valid recipients"}}]

Status code 400:
{"error":{"code":102,"description":"No valid recipients"}}
{"error":{"code":104,"description":"Text message missing"}}
{"error":{"code":105,"description":"Text message too long"}}
{"error":{"code":106,"description":"Sender missing"}}
{"error":{"code":107,"description":"Sender too long"}}
{"error":{"code":108,"description":"No valid Date time for send"}}
{"error":{"code":109,"description":"Notification URL incorrect"}}
{"error":{"code":110,"description":"Exceeded maximum parts allowed or incorrect number of parts"}}
{"error":{"code":113,"description":"Invalid coding"}}

Status code 401:
{"error":{"code":103,"description":"Username or password unknown"}}
{"error":{"code":112,"description":"IP address not allowed"}}

Status code 402:
{"error":{"code":111,"description":"Not enough credits"}}

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Appendix A: Receipt notifications

If you wish to receive receipt notifications in real time, you must specify the variable "dlr-url" with the URL of the client where you want to be notified of the sending status.

The operation consists in specifying the URL where you want to make a request to our server for each http request when a notification from the operator is received. To do this the customer must have an http server capable of receiving such notifications.

Our server will send the variables by the GET method as the customer wants. To do that in the URL that you send us, you have to put the variable name followed by an escape character that will contain the value, the escape characters have the form of the "%" character followed by a letter. This would be a URL example:

http://mi.server.com/notifica.php?remitente=%p&tel=%P&estado=%d

These are the defined escape characters:
 NRS %i identifier that was delivered when the sending was done
 %d value of the receipt notification
 %p the sender of the SMS
 %P the phone number of the SMS receiver
 %t date of sending the message to "YYYY-MM-DD HH: MM" format, e.g., "1999-09-21 14:18"
 %c message cost
 %e sms recipient country
 %m the recipient's mnc. This value is delivered only when the recipient mnc is resolved, so this value can be empty.
 %s Indicates the delivery status reported by the operator, the possible values are:
  REJECTD: The message has been rejected by the SMSC or Gateway
  DELIVRD: The message was successfully delivered
  EXPIRED: The message has expired according to the validity period of the message
  UNDELIV: The message could not be delivered to the recipient
  ACCEPTD: The message has been successfully sent to the SMSC or Gateway. This is an intermediate state, not an end state
  UNKNOWN: The final status of the message is unknown to the NRS-group. The message could have been delivered or failed. The status is

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unknown because no delivery confirmation has been received from the carrier, or the notification received by the carrier is unknown.

The %d value will return the final state of sending to us, the possible values are:
- 1: The message has been delivered to the recipient.
- 2: The message could not be delivered to the recipient.
- 4: The message was delivered to the SMSC, it is an intermediate notification, not an end result
- 16: It could not be delivered to the end operator

To better explain the process, an example of how the sending of an sms and the receipt notification will happen is given below.

First, we send the sms with the dlr-url variable to indicate the URL where we want to receive the delivery notification. We will add to this URL our dispatch identifier to identify it unambiguously when we receive it. The final url for the notification would be:

http://mi.server.com/notifica.php?idenvio=7584remitente=%p&tel=%P&estado=%d

Example of CURL request:

```
curl -X POST \
-H "Content-Type: application/json" \
-H "Accept: application/json" \
-H "Authorization: Basic bWl1c2VyOm1pcGFzcw==" \
-d "{\"to\":[\"34666555444\"],\"text\":\"message
\",\"from\":\"msg\",\"dlr-url\":\"http://mi.server.com/notifica.php?remitente=%p&
tel=%P&estado=%d\"}" \
https://gtw.nrsgateway.com/rest/message
```

Example of PHP request

```
<?php

$post['to'] = array('34666555444');
$post['text'] = "text message";
$post['from'] = "msg";
$post['dlr-url'] =
"http://mi.server.com/notifica.php?idenvio=7584remitente=%p&tel=%P&estado=%
d";

$user ="miuser";
$password = 'mipass';

$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, "https://gtw.nrsgateway.com/rest/message");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
curl_setopt($ch, CURLOPT_POST, 1);
```

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```
curl_setopt($ch, CURLOPT_HEADER, 1);
curl_setopt($ch, CURLOPT_POSTFIELDS, json_encode($post));
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
    "Accept: application/json",
    "Authorization: Basic ".base64_encode($user.":".$password)
));

$result = curl_exec ($ch);

?>
```

Assuming that all messages are delivered, we will receive to the notification .php script three petitions with the state = 1, sender = TEST, ID delivery = 7584, and the corresponding phone number.

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Basic set of characters

	0x00	0x10	0x20	0x30	0x40	0x50	0x60	0x70
0x00	@	Δ	SP	0	¡	P	¿	p
0x01	£	_	!	1	A	Q	a	q
0x02	$	Φ	"	2	B	R	b	r
0x03	¥	Γ	#	3	C	S	c	s
0x04	è	Λ	¤	4	D	T	d	t
0x05	é	Ω	%	5	E	U	e	u
0x06	ù	Π	&	6	F	V	f	v
0x07	ì	Ψ	'	7	G	W	g	w
0x08	ò	Σ	(	8	H	X	h	x
0x09	Ç	Θ	)	9	I	Y	i	y
0x0A	LF	Ξ	*	:	J	Z	j	z
0x0B	Ø	ESC	+	;	K	Ä	k	ä
0x0C	ø	Æ	,	<	L	Ö	l	ö
0x0D	CR	æ	-	=	M	Ñ	m	ñ
0x0E	Å	ß	.	>	N	Ü	n	ü
0x0F	å	É	/	?	O	§	o	à

Extension of the basic character set, these characters occupy two positions

	0x00	0x10	0x20	0x30	0x40	0x50	0x60	0x70
0x00									
0x01								
0x02								
0x03								
0x04		^						
0x05							€	
0x06								
0x07								
0x08			{					
0x09			}					
0x0A	FF							
0x0B		SS2						
0x0C			[					
0x0D	CR2		~					
0x0E			]					
0x0F			\					

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