Technical Guide

SMS API Integration

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1 Introduction

Gateway Controller series support SMS Gateway integration. The On-Demand account credentials can be sent to the users by SMS text messages. This technical document provides detailed configuration steps for integrating SMS services to SMS Gateway.

Note: Controller's SMS API sends each request to the external 3rd Party APIs via HTTP POST method in URL encoded formatting.

In this document, "Nexmo" is used as the configuration example for the SMS API. Please replace it with a preferred SMS provider.

2 Configurations

2.1 Checking for required API parameters.

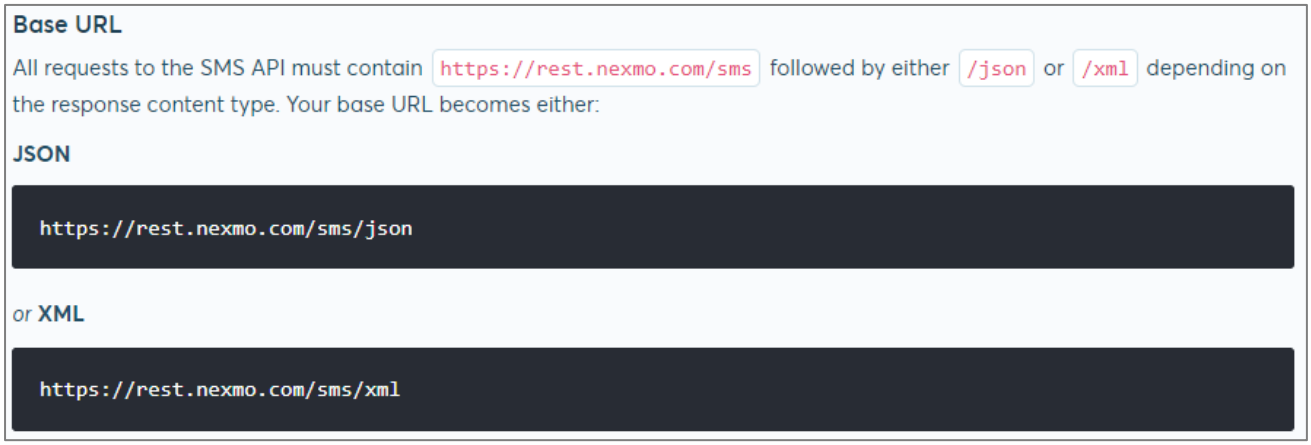
Note: Nexmo's SMS API is used as the example for this technical guide's configurations section.

a. Go to the SMS provider's API Reference page. https://developer.nexmo.com/api/sms.

b. Required API parameters are found for sending an SMS Request to their API server.

   i. API URL

   ii. Parameters and Values



Base URL from Nexmo's API Reference Page

Parameters

The following table shows the parameters you use in the request:

Parameter	Description	Required
`from`	An alphanumeric string giving your sender address. For example, `from=MyCompany20`. See our information Global messaging. This is also called the SenderID.	Yes.
`to`	A single phone number in **international format**, that is E.164. For example, `to=447700900000`. You can set one recipient only for each request.	Yes.
`type`	Default value is `text`. Possible values are: • text - for plain text SMS, you must also set the *text* parameter. • binary - for binary SMS you must also set the **udh** and *body* parameters. Do not set the *text* parameter. • wappush - a WAP Push. You must also set the `title` and `url` parameters. Do not set the `text` or `body` parameters. • unicode - SMS in unicode contain fewer characters than `text`. Only use *unicode* when your SMS must contain special characters. For more information, see Encoding. • vcal - send a calendar event. You send your vCal encoded calendar event in the *vcal* parameter. • vcard - send a business card. You send your vCard encoded business card in the the *vcard* parameter.	No.
`text`	The SMS body. Messages where *type* is text (the default) are in UTF-8 with URL encoding. You send "Déjà vu" as a text (type=text) message as long as you encode it as D%C3%A9j%C3%A0+vu. You can see the full UTF-8 character set here. To test if your message can be URL encoded, use: http://www.url-encode-decode.com/. If you cannot find the character you want to send in these two references, you should use unicode. For more information, see Encoding.	For `text` type SMS.

Parameters from Nexmo's API Reference Page

Authentication information

If you are not using applications, you use the following parameters for calls to Nexmo API:

Parameter	Description
`api_key`	Your Key. For example: `api_key=NEXMO_API_KEY`
`api_secret`	Your Secret. For example: `api_secret=NEXMO_API_SECRET`

Authentication Parameters from Nexmo's API Reference Page

c. The required API URL and Parameters for “Nexmo” are summarized below:

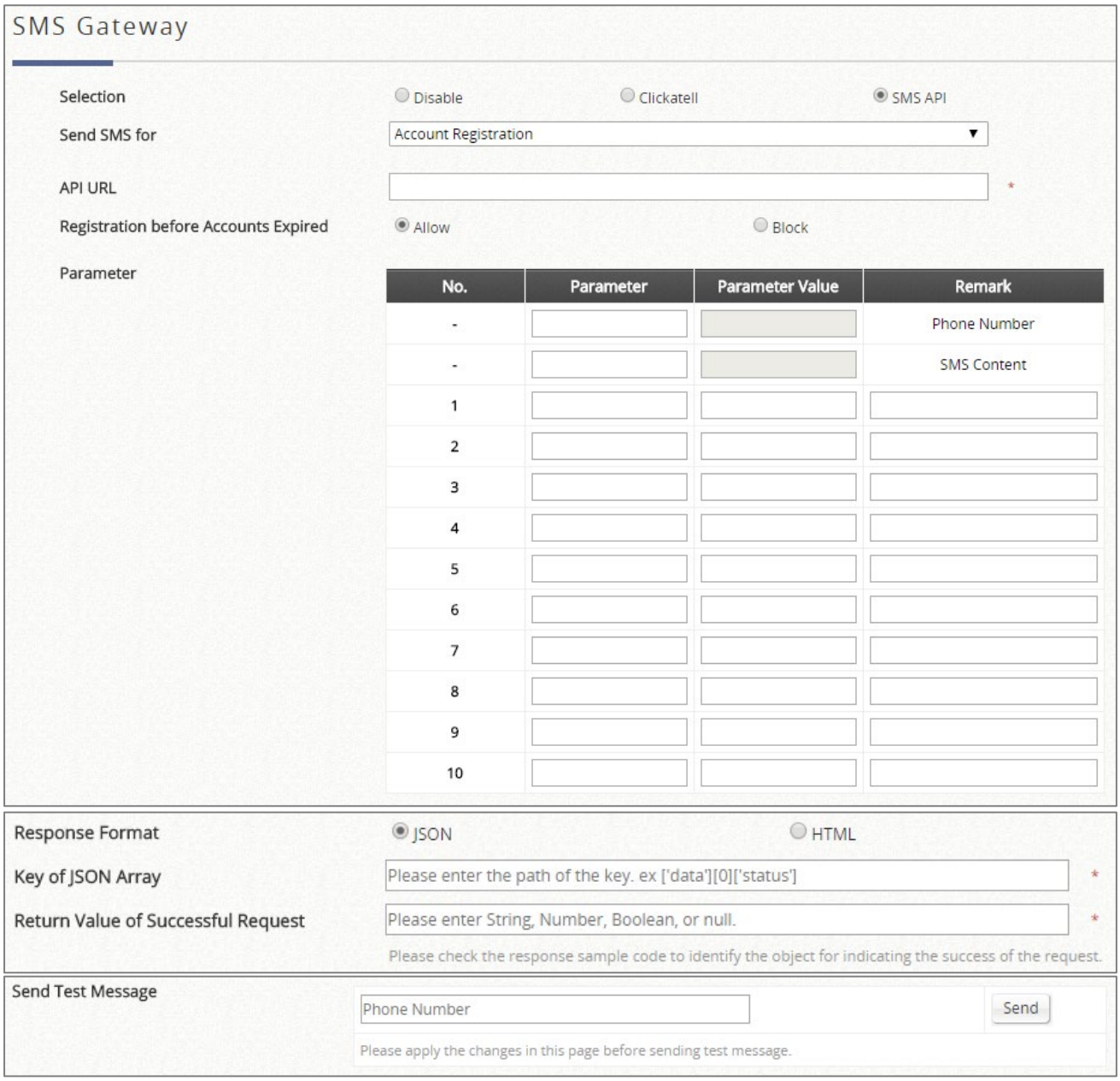
i. API URL: https://rest.nexmo.com/sms/json

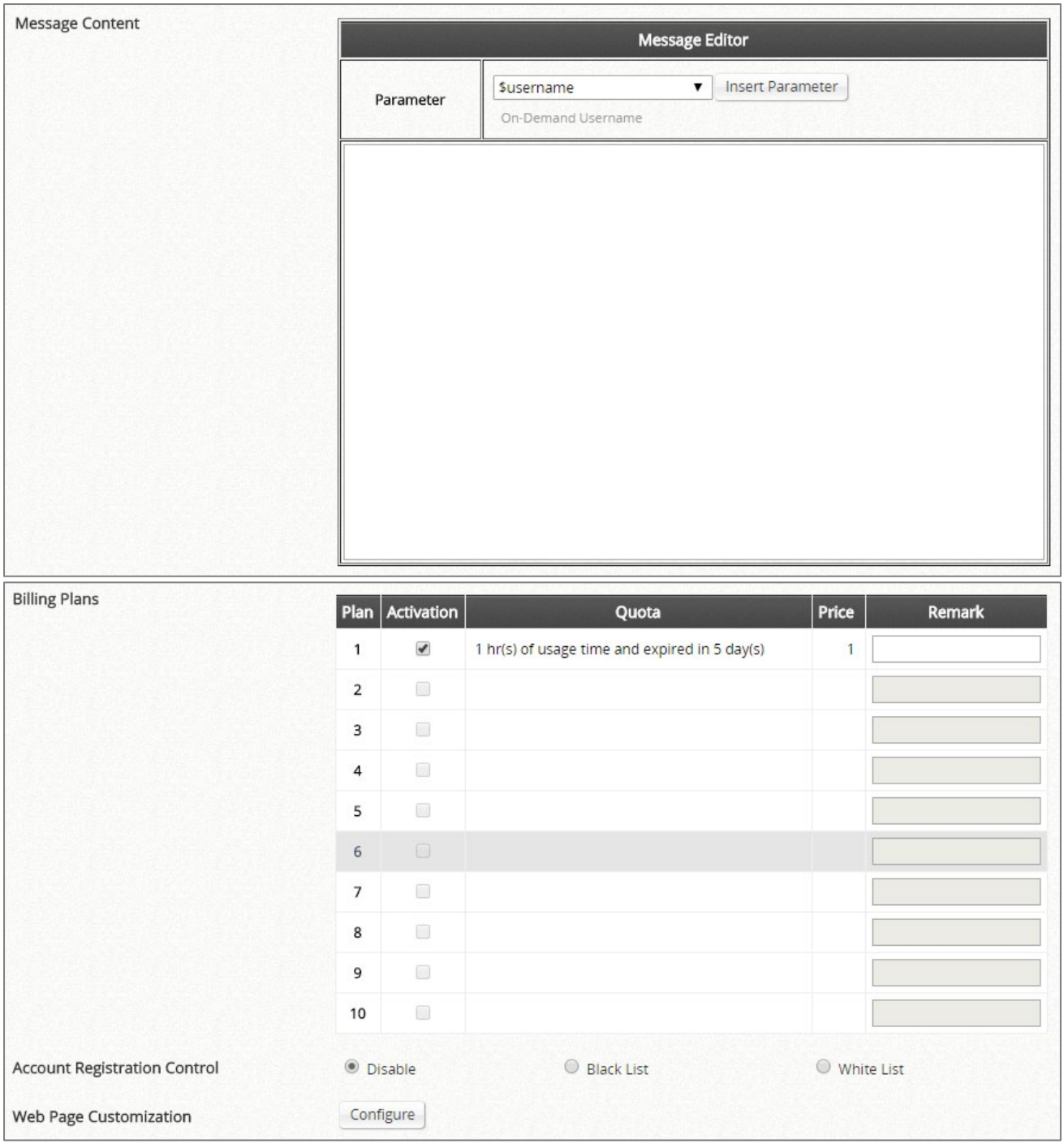
ii. Parameters: from, to, type, text, api_key, api_secret

Note: Although the “type” parameter is not required, it is included in the following example for clarity and for sending an SMS with text as the SMS body.

2.2 Configuring the Controller

a. Go to *Users > Internal Authentication > On-Demand Authentication > SMS Gateway* and select SMS API.





Controller – SMS API

Selection: Disabled, Clickatell or SMS API. Choose the preferred service and option.

Send SMS for: Account Registration, Account purchases via Payment Gateway or Both. Account Registration allows Wi-Fi users to self-register and receive a Wi-Fi account via SMS. Account purchases via Payment Gateway enables the SMS feature for Wi-Fi users who purchased an On-Demand account via an online Payment Gateway. They will be given an option to send the purchased account to their mobile device using SMS. Both will enable the two options.

API URL: The link for sending an SMS request to an API server.

Registration before Accounts Expire: Allow or Block. Allow will allow the same mobile number to request a 2nd On-Demand account even though the 1st account hasn't expired or been used yet. Block will restrict users to sending a 2nd On-Demand account only after their 1st account has expired.

Parameter: API parameters and values for sending an SMS request.

Response Format: JSON or HTML. Selected choice will depend on the type of response provided by the SMS service. The Response Format will be used by the Controller to determine whether the SMS text message has been sent successfully.

Key of JSON Array: Key Path of the value from the SMS request's response in JSON format.
Example: ['data'][0]['status']

Return Value of Successful Request: The text of the successful response is entered here.

Send Test Message: A mobile number is entered and a "test" SMS message is sent. On-Demand accounts will not be created when sending the SMS message.
Note: The "Test" button can be used to troubleshoot your SMS request and view the response message sent from your SMS provider.

Message Content: Customize the SMS Text Message received by Wi-Fi users in the Message Editor box. Four parameters regarding the created On-Demand account can be entered; the username, username without the postfix, password, and the quota description.

Parameter	Definition
$username	Username of the created On-Demand account.
$Username_without_postfix	Same as $username, but without the postfix.
$password	Password of the created On-Demand account.
$quota	Quota description for the created On-Demand account.

Billing Plans: Created and "Active" Billing Plans are displayed and used for creating On-Demand account via SMS.
Note: At least 1 Billing Plan must be selected.

Account Registration Control: Disable, Black List, White List. Disable to not restrict or allow only specified mobile numbers. Black List will deny specific mobile numbers from registering. White List will only allow specific mobile numbers to register.

Web Page Customization: Customize the Service Disclaimer and Billing Plan Selection Page using the Default, Customize with Template, Upload Your Own and Use External Page options.

b. Enter the API URL: https://rest.nexmo.com/sms/json

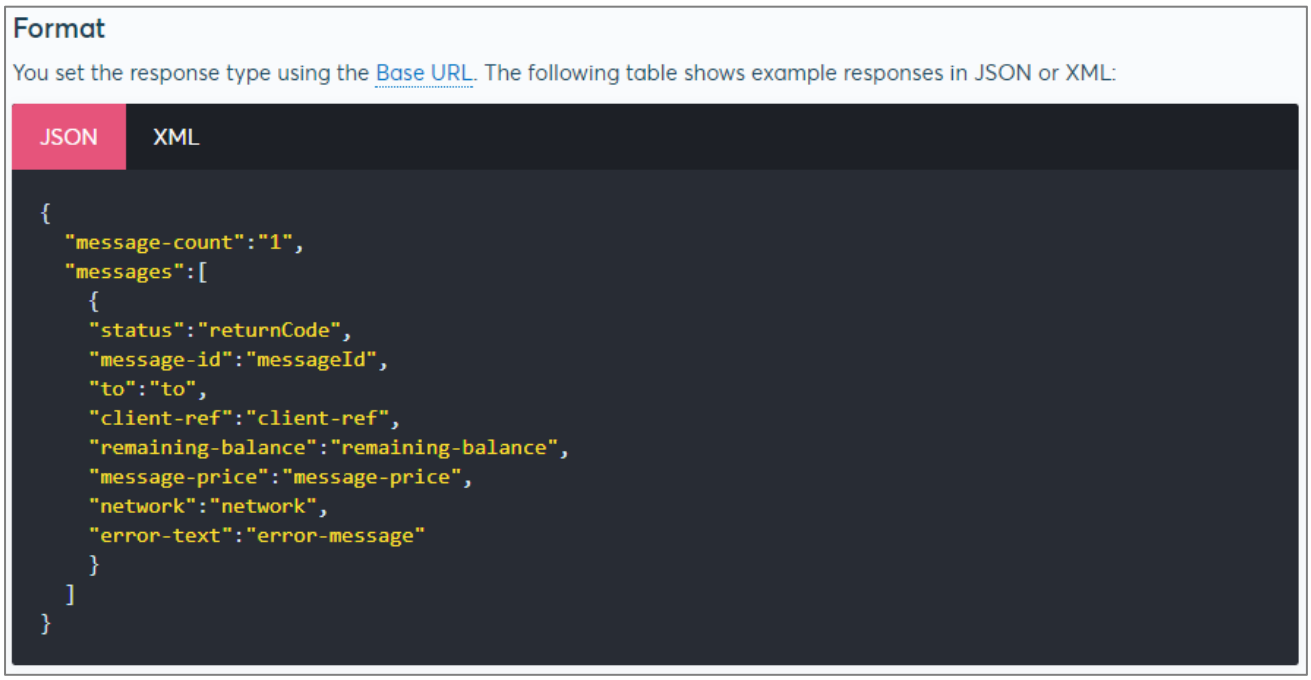
c. Enter the API Parameters and Values: from, to, type, text, api_key, api_secret

No.	Parameter	Parameter Value	Remark
-	to		Phone Number
-	text		SMS Content
1	from	Example Hotel	
2	type	text	
3	api_key	•••••••	
4	api_secret	••••••••••••••••	

Note: The api_key & api_secret's Parameter Values are hidden in this guide for confidentiality.

d. Select JSON as the Response Format and determine from the response whether the SMS is sent successfully or not.

Note: The Response Format and example can be viewed from the SMS provider's API page.



Response Format from Nexmo's API Reference Page

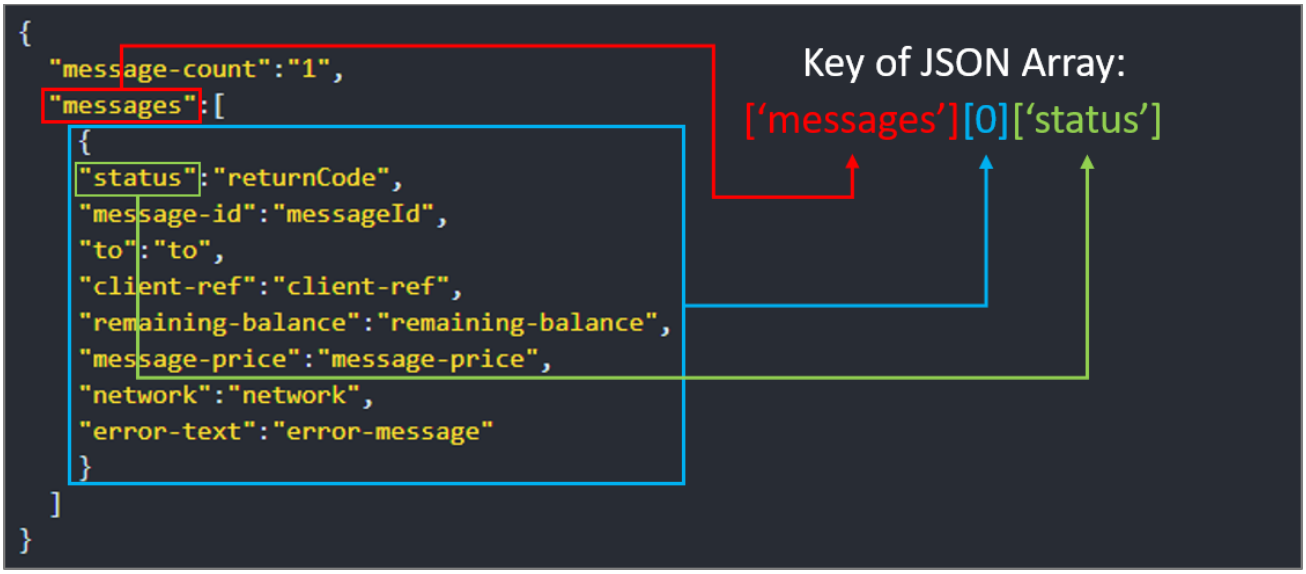
Determine the Key of JSON Array using the example response.

JSON contains keys and values pairs. In the example response, the first *"key":"value"* is "message-count":"1". The second *"key":"value"* pair, where the key is "messages" and the value is an array of more *"key":"value"* pairs as its value; "status", "message-id", "to", "client-ref", "remaining-balance", "message-price", "network" and "error-text".

The Controller needs the value of "returnCode" from the *"status":"returnCode"* pair to determine if the SMS request was sent successfully. To extract this value, the correct Key of JSON Array must be determined.

The Key of JSON Array is determined as the following: ['messages'][0]['status'] in single quotations.

[0] describes the starting index, 0, of the array in the value from "messages".



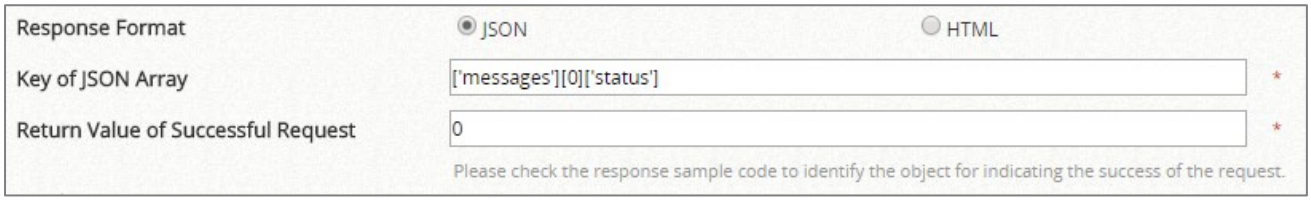
Error codes

Code	Text	Meaning
0	Success	The message was successfully accepted for delivery by Nexmo.
1	Throttled	You have exceeded the submission capacity allowed on this account. Please wait and retry.
2	Missing params	Your request is incomplete and missing some mandatory parameters.
3	Invalid params	The value of one or more parameters is invalid.
4	Invalid credentials	The `api_key` / `api_secret` you supplied is either invalid or disabled.

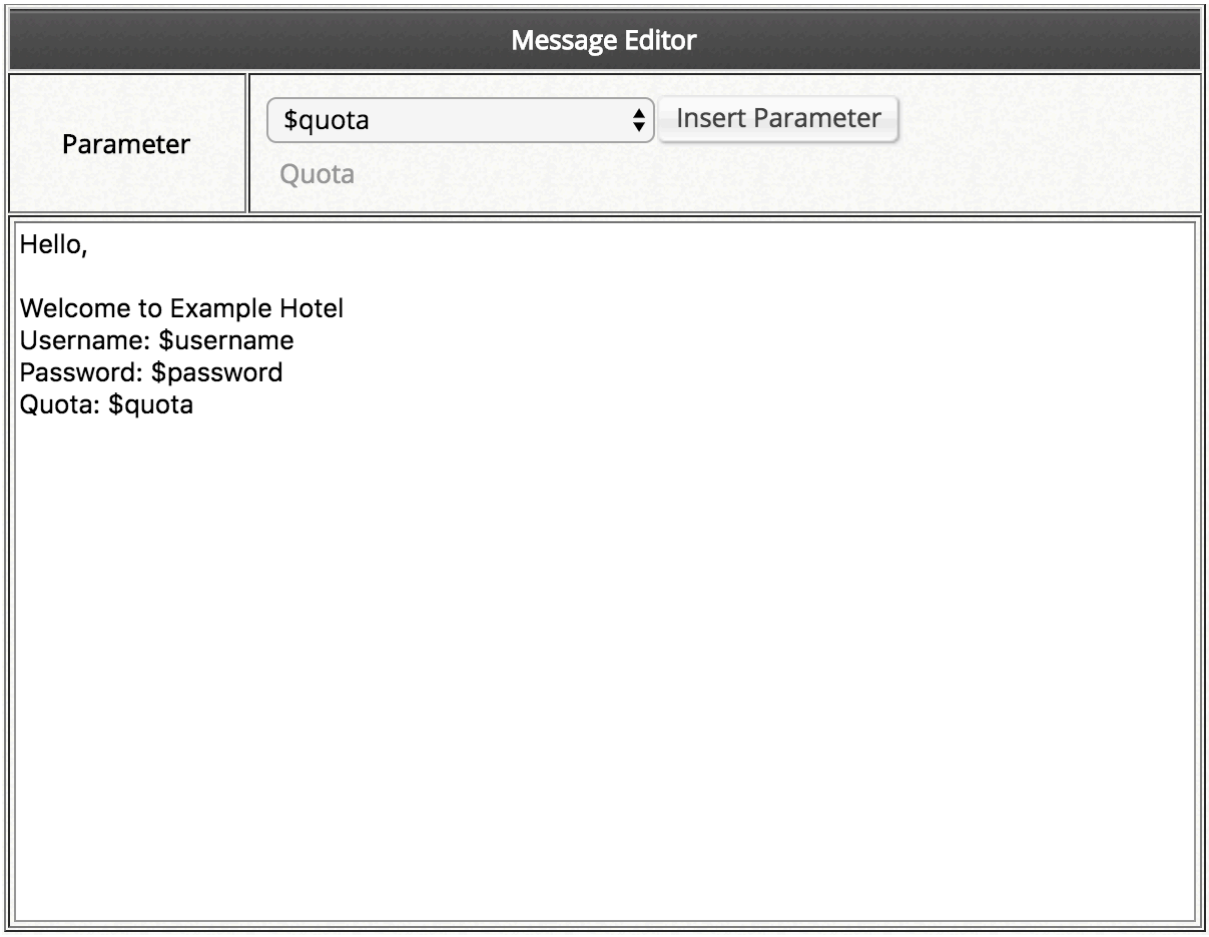
Error Codes from Nexmo's API Reference Page

The “returnCode” of a successful SMS request from Nexmo’s API is 0.

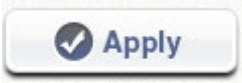
The Return Value of Successful Request is filled in with the correct number or text.



e. Customize the SMS Text Message in the Message Editor.



f. Apply the SMS API configurations.

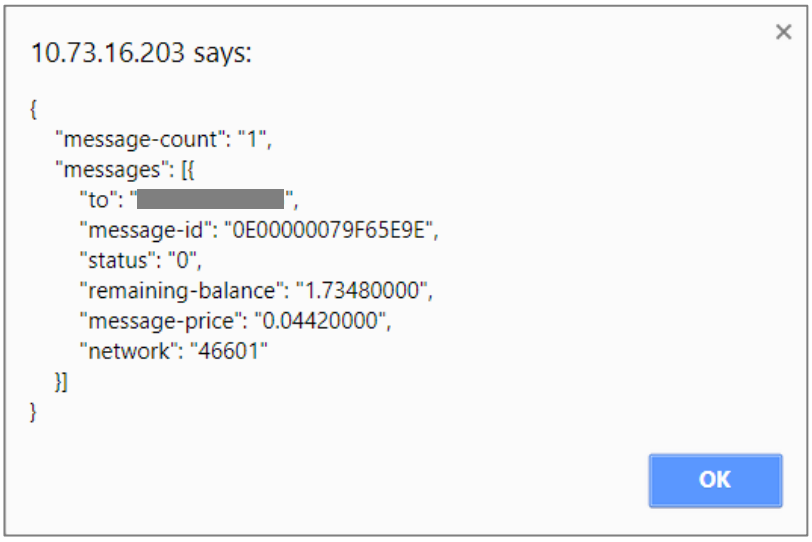


2.3 Sending a test message

a. Enter an acceptable mobile number to the Send Test Message field and click the Send button. (country codes may be required depending on the SMS provider)

Note: Sending a test message via the SMS API will consume credits.

b. The response message will be displayed in a pop-up message box.



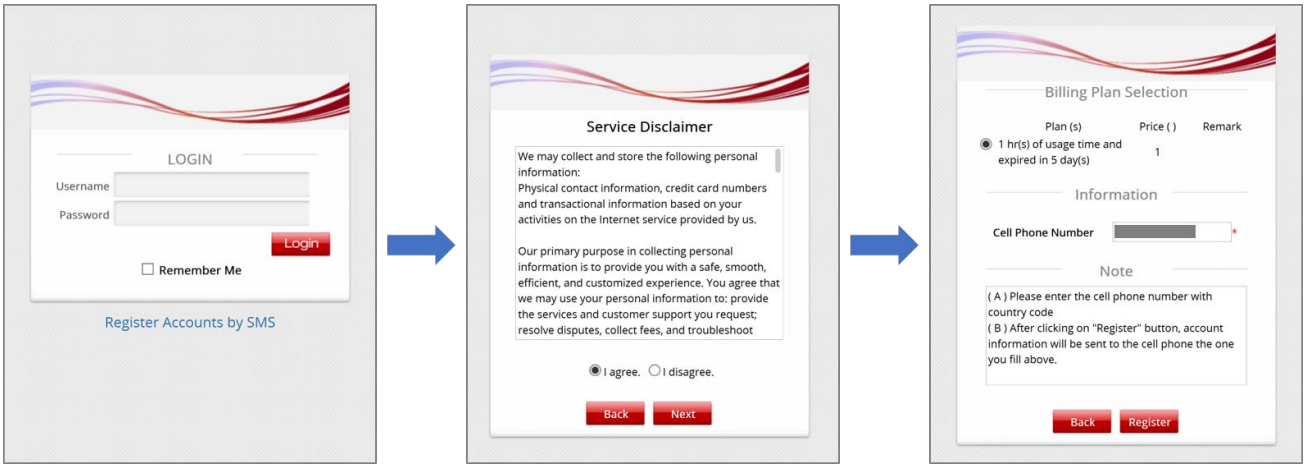
c. If the response matches that of a successful response formatting from the SMS provider's API reference page, then the configured API parameters and values are correct.

2.4 Testing Controller's interpretation of a Successful Response

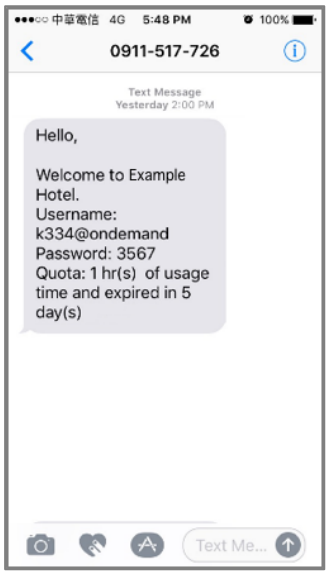
Note: if an SMS text message is received and the user gets an invalid username/password error message when trying to login, this may be due to the Controller interpreting the SMS response as fail and removing the account as a result.

a. Connect a client device to an SSID on the network or connect directly to the LAN port of the Controller.

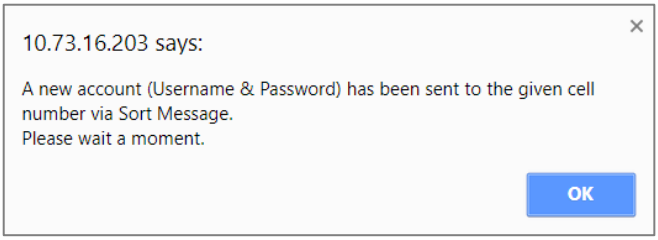
b. Follow the user flow for registering an On-Demand account via SMS.



c. The client sees two potential results below and receives the SMS text message.



Result A:



Result B:

If an SMS text message is received by the mobile device and either of the following:

- Result A is shown, the Return Value of Successful Request configured is **correct**.

- Result B is shown, the Return Value of Successful Request configured is **incorrect** and the On-Demand account is deleted from the CONTOLLER's On-Demand Account list as a result.

3 Conclusion

With Controller integrated with SMS API and implement SMS login, we could make sure we collect the correct phone number of our client.

4 Remarks

Please contact Technical Support Team for additional inquiries.