

Karix SMS QS (UP)

API Specification Document

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Document Control

Amendments					
Version	Date	Prepared by	Added/ Deleted/ Modified (A/D/M)	Section #	Brief Description of Changes
1.0	08/07/2020	Divya	Released final version doc for use	All	Initial doc
2.0	23/08/2020	Kumarapandian D	A	Parameter	Added DLT Related parameters.

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1. INTRODUCTION

1.1 Purpose of the Document

The purpose of this document is to outline the technical functionality required to send SMS messages through Query string payload. This document is intended for third-party application developers

1.2 API Overview

This guide provides specifications of the QUERY STRING based API connectivity provided by Karix to its customers to subscribe to Karix's SMS Service. This guide is intended for developers planning on integrating their systems with Karix's SMS service.

This guide assumes that you are familiar with and have experience in applying the following technologies and concepts:

- Invoking the HTTP API request using QUERY STRING payload

1.3 References (Not applicable)

[Note any references or related materials here. Example: requirements specification]

2. API CONSIDERATIONS

2.1 Assumptions

It is assumed that readers of this documents shall have a basic understanding of Query String

2.2 Constraints (Not applicable)

[Describe any constraints on the system that have a significant impact on the design of the API. (e.g. technology constraints, performance requirements, end user characteristics, validation requirements, project constraints, etc.) These are things the customer has told you that directly influence the design. Document the constraints that can be encountered with respect to validating the API environment.]

2.3 System Environment (Not applicable)

[Describe the hardware and software that the system must operate in and interact with.]

2.4 Other Specific Requirements (Not applicable)

[The Other Specific requirements are the one that documents the interaction of the product components with the environment, users, and other product component.]

3. QUERY STRING API DETAILS

3.1 Feature supported by this API

The features supported by this Query String API are as follows,

- We are supporting simple authentication protocol in header.
- One 2 One (single message to single recipient)
- One 2 Many (single message to multiple recipients)

3.2 Query String API Parameter specification

Query String API should include the following parameters as per the requirement. Any invalid parameters will be ignored.

Note: For authentication, the authorization parameter and its value can be passed via header / request body.

For header:

Key	Authorization
Value	Basic encoded value

Encoded Value: Value = encodedBase64 (Username:AccessKey)

For request body:

Key	key
Value	AccessKey

3.2.1 Parameters supported by the Query String API call include

Parameter name	Description	Comments	QUERY STRING parameter	Is Mandatory	Possible values	Default value
API Version	To specify the version of this Query String API.		<code>ver</code>	Yes	1.0 2.0	2.0
API-Access-Key	A unique key to identify the customer.	This will be available in a separate table to map the user and the access key. Note: Key will be provided by Karix.	<code>key</code>	Yes	XXX...X	Not applicable
Encryption (Old parameter)	To decrypt the message and mobile number after receiving	The decryption based on the unique Customer's Key provided by Karix. This will be deprecated in the future versions Should use <code>encrypt</code> .	<code>encrypt</code>	No	1/0	0

Encryption	To decrypt the message and mobile number after receiving	The decryption based on the unique Customer's Key provided by Karix.	encrypt	No	1/0	0
Schedule Time	To specify the schedule time for the message to be sent out	String representing the date and time in the below format 'yyyy-MM-dd HH:mm:ss' Minimum Schedule time is CurrentTime + 15 Minutes Maximum Schedule time is CurrentDate + 3 Months. Note: IST & UTC time zone is supported.	sch_at	No	XXXXXX	null
MSISDN	To specify the mobile number	The mobile numbers will be enclosed in dest parameter name. For example	dest	Yes	XXX	Not applicable

		dest=987654 3210 Not supporting the E.164 format				
MESSAGE TEXT	Message to be sent out	No limitation for the number of characters in the message	text	Yes	XXX	Not applicabl e
From Address	To specify the Sender ID	Max Length = 15	send	Yes	XXX	Not applicabl e
Content Type	Content Type of the message	Content Type, Data Coding Schema (DCS), UDHI are inter related. Please refer the note below.	type	No	FLASH- FL; PLAIN- PM; UNICODE -UC; BINARY- BM; FLASH UNICODE -FU; SPECIFIC PORT- SP; SPECIFIC PORT UNICODE -SPU;	PM

					ADVANCE-AD	
DLT Entity Id	The Entity ID registered with the DLT platform.	The Entity ID registered with the DLT platform.	dlt_entity_id	No	XXXXXX	null
DLT Template Id	The Template ID registered with the DLT platform for the Entity ID.	The Template ID registered with the DLT platform for the Entity ID.	dlt_template_id	No	XXXXXX	null
Data Coding Schema	To specify the DCS Value	Content Type, Data Coding Schema (DCS), UDHI are inter related. Please refer the note below. Note: Applicable only for the 'ADVANCE' content type.	dcs	No	999	Not applicable
UDHI included	To specify whether the message is having UDHI values	Content Type, Data Coding Schema (DCS), UDHI are inter	udhi_in	No	1 / 0	0

		related. Please refer the note below. Note: Applicable only for the 'ADVANCE' content type.				
Port	To specify the specific Ports to deliver the messages on those ports (As provided by Client)	Max Length = 5 Min Value = 0 Max Value = 65535	port	No	99999	Not applicable
Send delivery notification	To specify about the DLR to be send back or not. As per the account level configuration, the DLR will be send back in QS API.		dlr_req	No	1 / 0	0
Validity Period	To specify the validity period for this message request.	The value will be treated in minutes. Minimum = 1 Maximum = 1440 (one day)	vp	No	9999	Not applicable

Append Country Code	To specify to prefix the default country code in case mobile number length is matching with the length specified in the table for that account.		<code>app_country</code>	No	1 / 0	0
Default Country Code	In case of append_country is set to 1 and wanted to override the country code specified in the table, when the mobile number length is match with the table value		<code>country_cd</code>	No	9999	Not applicable
Template ID	To use a specific template for this customer for this message.	Supported only for Plain messages.	<code>template_id</code>	No	XXXXX...X	Not applicable

Template Values	The template values (dynamic values) to be used for the given template ID.	Supported only for Plain messages. Supports maximum of 10 dynamic parameters. The valused are separated by tilde character	<code>template_values</code>	No	template_values=XXXX~YYYY	Not Applicable
Urltracking	To specify this message is having URL tracking		<code>urltrack</code>	No	1 / 0	0
Customer Reference ID	An unique id send by the customer for every message	Max Length = 50	<code>cust_ref</code>	No	XXX	Not applicable
Message Tag	To specify the Message tag	Max Length = 50	<code>tag</code>	No	XXX	Not applicable
Message Tag1	To specify the Message tag 1	Max Length = 100	<code>tag1</code>	No	XXX	Not applicable
Message Tag2	To specify the Message tag 2	Max Length = 100	<code>tag2</code>	No	XXX	Not applicable

Message Tag3	To specify the Message tag 3	Max Length = 100	tag3	No	XXX	Not applicable
Message Tag4	To specify the Message tag 4	Max Length = 200	tag4	No	XXX	Not applicable
Message Tag5	To specify the Message tag 5	Max Length = 200	tag5	No	XXX	Not applicable

Note:

- Only IST zone is supported for scheduling the messages. i.e., User need to schedule the messages as per the Indian Standard Time Zone only.
- For Message Text parameter, there is no limitation for the number of characters in the message.
- After the submission of message to the operator, the operator is the sole responsible for the validity period of the message.
- The template id and template value parameters are applicable only for the plain message types. It is mandatory to provide the values to the Template value parameter whenever the template id parameter is used.

3.2.2 Note on Content Types

1. By default, the API assume that the incoming request is on UTF-8 charset. If the customer wants to send in a different charset, then they must specify the charset in the http request's content-type.

2. The content type (type parameter) can be any one of the following.

Parameter type	Content Type	Value
a)	FLASH	FL
b)	PLAIN	PM
c)	UNICODE	UC
d)	BINARY	BM
e)	FLASH UNICODE	FU
f)	SPECIFIC PORT	SP
g)	SPECIFIC PORT UNICODE	SPU
h)	ADVANCE	AD

- In case of the type 'a', 'b', 'c', 'd' there is no need to set the DCS value and the udhi_inc value.
- When the type is 'e', then the customers must specify the DCS value based on the industry standard. The same will sent to the SMSCs.
- When the type is 'e', and the udhi_inc is '0' then API will split the message and append the respective UDH value with the corresponding split message.
- When the type is 'e', and the udhi_inc is '1' then there is no need to do anything for the message and must process the message as it is.

Note: The UDH and DCS values are applicable only for the '**ADVANCE**' Content type

3.3 Sample Header Format

Constraints on declaring the authorization:

- The authentication value should be declared in the header (as authorization) or in the request body (as key tag).

- In case, if both the values such as key tag (in the request body) and authorization value (in the header) are declared, then the key tag will be considered as primary.
- The authentication value in the header should be in the below mentioned format,

Header:

Key	Authorization
Value	Basic encoded value

Encoded Value: Value = encodedBase64 (Username:AccessKey)

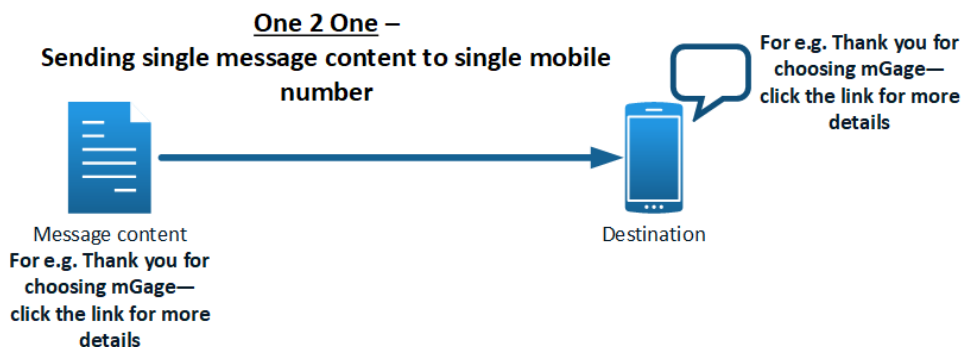
3.4 Request Format

The sample requests of this Query String API will be as follows,

3.4.1 Sample Request Format

One 2 One (Single message to Single recipient)

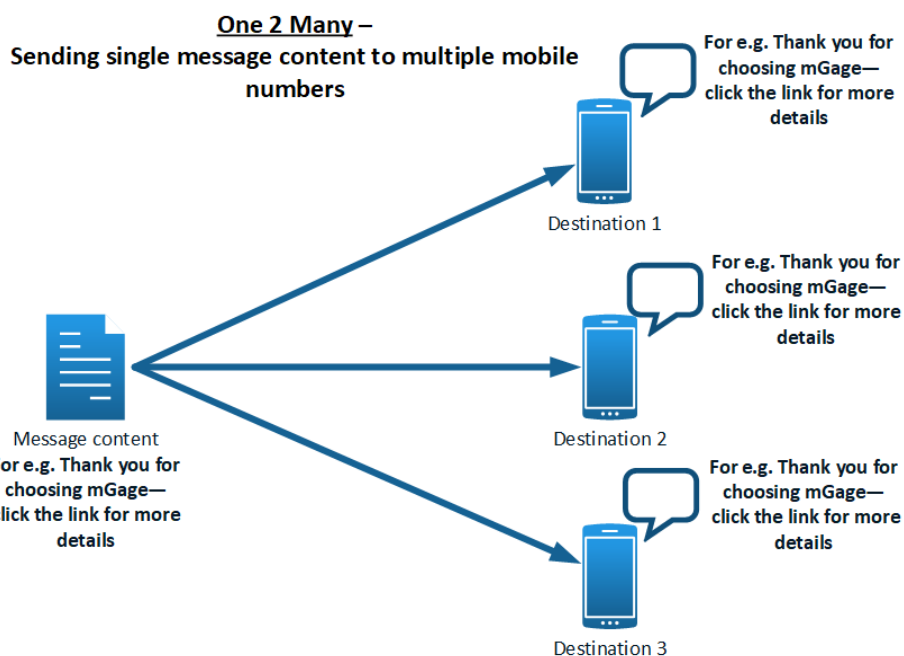
- It refers specifically to the sending of single message to a single recipient.



```
http://<host>:<port>/httpapi/QueryStringReceiver?ver=2.0&key=ABEFGH_123456_I
JKLMNOP&encrypt=0&encrypt=0&sch_at=2018-02-13
10:00:00&dest=9876543210&send=send&text=hello&dcs=8&udhi_inc=1&udh=1231&port
=1223&dlr_req=1&vp=45&app_country=1&country_cd=91
&template_id=1&template_values=1234~OTP&dlt_entity_id=1234567&dlt_template_i
d=987654321
```

One 2 Many (Single message to Multiple recipients)

- One 2 Many SMS is basically a type of group SMS in which same message is broadcasted to many recipients
- This feature enables the user to send a single message content to the multiple mobile numbers. In this scenario, all the predetermined mobile numbers will receive the same format of message content.
- The mobile numbers will be given in the dest parameter and each mobile numbers will be separated by Comma (,) special character. For example, dest=9876543210, 9876543210.



```
http://<host>:<port>/httpapi/QueryStringReceiver?ver=2.0&key=ABEFGH_123456_I
JKLMNOP&encrypt=0&encrypt=0&sch_at=2018-02-13
10:00:00&dest=9876543210,9876543210,9876543210&send=send&text=hello&dcs=8&ud
hi_inc=1&udh=1231&port=1223&dlr_req=1&vp=45&app_country=1&country_cd=91&temp
late_id=1&template_values=1234~OTP&dlt_entity_id=1234567&dlt_template_id=987
654321
```


3.5 Sample Response Format

The below section outline response format for every request that was successfully received by Karix's messaging platform.

3.5.1 Sample Success Response Format

The following sample response format would be received when the request was successfully accepted by the platform.

```
Request accepted for Request ID=2123281830580000900 & Statuscode=200
& Info=Platform Accepted & Time=2018-01-28 18:30:58
```

3.5.2 Sample Failure Response Format

The following sample response format would be received when the request was not accepted by the platform.

```
Invalid API version for Request ID=N/A & Statuscode=-101 &
Info=REJECTED & Time=2018-01-28 18:31:42
```

Note: All the error responses will be moreover the same, but only the status code and error description will differ from one another.

3.5.3 System Success Format (Not applicable)

3.5.4 System Failure Format (Not applicable)

3.6 Status code reference for response

The following API status and errors codes that you may get in case there is a wrong parameter entered or issue with the account:

Status Code	Status Description	Comment
200	MSG_ACCEPTED	Request accepted
-999	INTERNAL_ERROR	Internal Error
-101	API_VERSION_INVALID	Invalid API version
-104	INVALID_REQUEST	Invalid Request
-105	IP_RESTRICTED	IP restricted
-106	ACCOUNT_EXPIRED	Account expired
-107	ACCOUNT_INACTIVE	Account deactivated
-108	ACCOUNT_INVALID_CREDENTIALS	Invalid Credentials
-109	ENCRYPTION_OPTION_INVALID	Invalid encryption option
-110	SCHEDULE_OPTION_DISABLE	Scheduling feature disabled

-111	SCHEDULE_INVALID_TIME	Invalid schedule time
-112	SCHEDULE_TIME_BEYOND_TIME_BOUND	Schedule time is beyond the time bound
-113	DESTINATION_EMPTY	Empty mobile number
-114	DESTINATION_INVALID	Invalid mobile number
-115	MESSAGE_EMPTY	Empty message content
-116	INVALID_MSGTYPE	Invalid message type
-117	PORT_INVALID	Invalid Port
-118	DLRTYPE_INVALID	Invalid DLR type
-119	EXPIRY_MINUTES_INVALID	Invalid Expiry Minutes
-120	EXPIRY_MINUTES_BEYOUND_TIME_BOUND	Expiry time is beyond the time bound
-121	COUNTRY_CODE_INVALID_APPEND	Invalid append country code option
-122	URLTRACK_INVALID_OPTION	Invalid URL tracking option
-123	CUST_REFERENCE_ID_INVALID	Invalid customer reference id
-124	CUST_REFERENCE_ID_INVALID_LENGTH	Invalid customer reference id length
-125	TRAI_BLOCKOUT_TIME	Cannot send message in TRAI block-out time
-126	SCHEDULE_TRAI_BLOCKOUT_TIME	Cannot Schedule the message delivery time to TRAI block-out time
-127	DCS_INVALID	Invalid DCS value
-128	UDHI_INVALID	Invalid UDHI
-129	SENDER_ID_EMPTY	Empty senderId
-130	INVALID_SENDERID	Invalid senderId
-131	INVALID_TEMPLATEID	Invalid TemplateId
-132	TEMPLATE_VALUES_EMPTY	Empty TemplateId
-133	INVALID_UDH	Invalid UDH
-142	ACCESS_VIOLATION	Access violation
-143	ERROR_REPORTING_KEY	Empty reporting key

3.6.1 Sample Format of possible error /success response

Error Code: -999	Description: This error response is thrown whenever an internal error occurs.
Internal Error for Request ID=N/A & Statuscode=-999 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -101	Description: This error response is thrown when the user entered an invalid API version.
Invalid API Version for Request ID=N/A & Statuscode=-101 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -104	Description: This error response is thrown when the Query string is incomplete/not in proper format.
Invalid Request for Request ID=N/A & Statuscode=-104 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -105	Description: This error response is thrown when the request from unauthorised source
Invalid source IP for Request ID=N/A & Statuscode=-105 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -106	Description: This error response is thrown when the request is submitted from an expired account
Account expired for Request ID=N/A & Statuscode=-106 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -107	Description: This error response is thrown when the request is submitted from a deactivated account
Account deactivated for Request ID=N/A & Statuscode=-107 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -108	Description: This error response is thrown when the username/password is incorrect
Invalid credential for Request ID=N/A & Statuscode=-108 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -109	Description: This error response is thrown when the encryption option is invalid
Invalid encryption option for Request ID=N/A & Statuscode=-109 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -110	Description: This error response is thrown when the scheduling feature is disabled for that account
Scheduling feature disabled for Request ID=N/A & Statuscode=-110 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -111	Description: This error response is thrown when the schedule time in the request is not in the expected format
Invalid schedule time for Request ID=N/A & Statuscode=-111 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -112	Description: This error response is thrown when the schedule time is beyond the time bound (i.e. beyond 3 months)
Schedule time is beyond the time bound for Request ID=N/A & Statuscode=-112 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -113	Description: This error response is thrown when the destination in the request is empty
Empty mobile number for Request ID=N/A & Statuscode=-113 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -114	Description: This error response is thrown when the destination number in the request is invalid
Invalid mobile number for Request ID=N/A & Statuscode=-114 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -115	Description: This error response is thrown when the message content is empty in the request
Empty message content for Request ID=N/A & Statuscode=-115 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -116	Description: This error response is thrown when the message type is unsupported / invalid
Invalid message type for Request ID=N/A & Statuscode=-116 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -117	Description: This error response is thrown when the request comes from invalid port
Invalid port for Request ID=N/A & Statuscode=-117 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -118	Description: This error response is thrown when the DLR type mentioned is invalid
Invalid DLR type for Request ID=N/A & Statuscode=-118 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -119	Description: This error response is thrown when the expiry minutes is invalid
Invalid Expiry minutes for Request ID=N/A & Statuscode=-119 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -120	Description: This error response is thrown when the expiry time is beyond the time bound
Expiry time is beyond the time bound for Request ID=N/A & Statuscode=-120 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -121	Description: This error response is thrown when the option to append country code is invalid
Invalid append country code option for Request ID=N/A & Statuscode=-121 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss <time> yyyy-MM-dd HH:mm:ss	
Error Code: -122	Description: This error response is thrown when the URL Tracking option is invalid
Invalid URL tracking option for Request ID=N/A & Statuscode=-122 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -123	Description: This error response is thrown when the customer reference id is invalid
Invalid customer reference id for Request ID=N/A & Statuscode=-123 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -124	Description: This error response is thrown when the customer reference ID length is invalid (i.e. more than 50 characters)
Invalid customer reference id length for Request ID=N/A & Statuscode=-124 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -125	Description: This error response is thrown when the customer has sent the messages at TRAI blackout time.
Cannot send message in TRAI blackout time for Request ID=N/A & Statuscode=-125 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -126	Description: This error response is thrown whenever the message delivery time is scheduled to TRAI blackout time.
Cannot schedule the message delivery time in TRAI blackout time for Request ID=N/A & Statuscode=-126 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -127	Description: This error response is thrown when the DCS value is invalid.
Invalid DCS value for Request ID=N/A & Statuscode=-127 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -128	Description: This error response is thrown when the UDHI value is invalid.
Invalid UDHI for Request ID=N/A & Statuscode=-128 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -129	Description: This error response is thrown when the sender Id is empty.
Empty senderId for Request ID=N/A & Statuscode=-129 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	
Error Code: -130	Description: This error response is thrown when the sender Id is invalid.
Invalid senderId for Request ID=N/A & Statuscode=-130 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -131	Description: This error response is thrown when the template Id is invalid.
Invalid templateId for Request ID=N/A & Statuscode=-131 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -132	Description: This error response is thrown when the template values are empty.
Empty templateValues for Request ID=N/A & Statuscode=-132 & Info=REJECTED & Time= yyyy-MM-dd HH:mm:ss	

Error Code: -133	Description: This error response is thrown when the template values are empty.
Access Violation for Request ID=N/A & Statuscode=-142 & Info=REJECTED & Time=2020-06-30 14:59:20	

Error Code: -142	Description: This error response is thrown when the template values are empty.
Access Violation for Request ID=N/A & Statuscode=-142 & Info=REJECTED & Time=2020-06-30 14:59:20	

Error Code: -143	Description: This error response is thrown when the template values are empty.
Access Violation for Request ID=N/A & Statuscode=-142 & Info=REJECTED & Time=2020-06-30 14:59:20	

4. ANNEXURE (NOT APPLICABLE)

- Database Table Descriptions (Optional)
- Report Formats (Optional)
- Glossary