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LINK Mobility

Common Platform API

Keyword API

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The most up-to-date version of this document is available at

<https://www.linkmobility.com/developer/>

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Before you begin

To use this API, you will need **username**, **password**, **a number**, **platformId** and **platformPartnerId**. These will be provided to you by support. If necessary, make an opening in your firewall so that common can connect to your system. The list of addresses for common will be find in the appendix.

Base URL:s

You will get one of these URL:s assigned to you when your account is created:

```
https://eu.linkmobility.io/morouter
https://n-eu.linkmobility.io/morouter
https://c-eu.linkmobility.io/morouter
https://s-eu.linkmobility.io/morouter
https://no.linkmobility.io/morouter
https://deb.linkmobility.io/morouter (will be decommissioned after 2023-08-31)
https://wsx.sp247.net/morouter (legacy)
```

Authentication

There are two ways of doing authentication: OAuth 2.0 or Basic Authentication.

OAuth 2.0

The preferred way of authentication is using OAuth 2.0. It requires the client to obtain a token to be used in other requests.

The only grant type currently supported is “client_credentials” where the “client_id” is the username and “client_secret” is the password provided by Support.

This would be posted to the access token URL as:

POST /auth/token

Content-Type: application/x-www-form-urlencoded

grant_type=client_credentials&client_id=user&client_secret=secret

Successful result with HTTP status 200:

```
{"access_token": "xxxxxxx", "token_type": "Bearer", "expires_in": 3599}
```

The access_token value should be used as a header in requests to be used for authorization:

Authorization: Bearer xxxxxx

The max age for a token is specified in the expires_in field in seconds.

Unsuccessful results will return a different HTTP status than 200 and the body will contain a error parameter in a JSON object with any of the following results: *invalid_request*, *unsupported_grant_type*, *invalid_client* or *internal_error*.

Basic Authentication

Authenticate in the HTTP request using Basic Authentication with the username and password provided by Support.

Scope of this document

This document will describe in detail the methods within the API for creating, retrieving, updating and deleting keywords towards the Common API.

Terms and glossary

Keyword

The keyword is simply a word mapped with certain conditions to be received and then forwarded to a certain getaway, depending of how its keyword data looks like. The keywords in the system has the following constrains:

- Keywords may not have overlapping time
- Keyword type is only a match type and doesn't allow different types at the same time. Example: Keyword COOKIE may not be registered as EQUALS and STARTS_WITH at the same time.
- Flag shared may not be modified. Keyword must be removed and created again to support shared.
- Shared keywords may not be created on top of an existing non-shared keyword
- Sentences that has same first word must have the same owner. This rule may be overridden by an administrator, see Override rules.
- The shortest keyword may be 3 characters. This rule may be overridden by an administrator, see Override rules.
- All UTF-8 characters are allowed, but code points in the interval 0x00-0x1F (invisible control characters) and 0xA0 (non-breaking space) will be replaced with space. Multiple spaces in a row will be reduced to one. Space before or after visible characters will be removed.

Gate

A Gate, or gateway, is an endpoint used to deliver MO, MT DLR, Address lookup and URL shortener callbacks, as well as the asynchronous callbacks from other services, that are described in their respective documents.

Number

A number in the API context, is a string that is either a Msisdn like +46123456789 or a short code. The short code's format is based on a two-letter prefix (ISO-3166-1 alpha-2) followed by a number (e.g SE-1234, DK-3456, FI-4567).

ErrorResponse

A json object that contains an error code, a description and its translation.

MoMessage

Or MO (Mobile Originated). Refers to any SMS message which is sent from a mobile phone. (The message's origin, or beginning, is at the phone).

HTTP Methods, statuses and actions

HTTP method	No resource	Resource exist	No access to resource	Invalid Request
GET	404 (Not found) Return: ErrorResponse	200 (OK) Return: Correct Resource	403 (Forbidden) 401 (Unauthorized) if the login is invalid Return: ErrorResponse	400 (Bad Request) Return: ErrorResponse
POST	201 (Created) Return http header: <i>location: {resource location}</i>	409 (Conflict) Return: ErrorResponse	403 (Forbidden) 401 (Unauthorized) if the login is invalid	400 (Bad Request) Return: ErrorResponse

	Return: empty body		Return: ErrorResponse	
PUT	404 (Not found) Return: ErrorResponse	204 (OK – No content) Return: ErrorResponse	403 (Forbidden) 401 (Unauthorized) if the login is invalid Return: ErrorResponse	400 (Bad Request) Return: ErrorResponse
DELETE	404 (Not found) Return: ErrorResponse	204 (OK – No content) Return: ErrorResponse	403 (Forbidden) 401 (Unauthorized) if the login is invalid Return: ErrorResponse	400 (Bad Request) Return: ErrorResponse

Methods

Add a keyword data

Adds a keyword data to the storage by posting a keyword object.

HTTP Method	POST	
URI	/number/{number}/keyword	
Path params	number	The number that the keyword will be routed to.
Consumable Resource	A keyword data object without the Id.	
Response http headers	Location	Contains the URI to use to retrieve the recently added keyword.

Get keyword data by id

Retrieves a keyword by its Id.

HTTP Method	GET	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/id/{id}	
Path params	number	The number that the keywords are routed to.
	platformId	The Id of the platform
	partnerId	The Id of the partnerId

	id	The Id of the Keyword

Get keyword data by refId

Retrieves a keyword by its refId.

HTTP Method	GET	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/refid/{refid}	
Path params	number	The number that the keywords are routed to.
	platformId	The Id of the platform
	partnerId	The Id of the partnerId
	refid	The refId of the Keyword

Get keyword by id

Retrieves a keyword by its Id.

HTTP Method	GET	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/id/{id}	
Path params	number	The number that the keywords are routed to.
	platformId	The Id of the platform
	partnerId	The Id of the partnerId
	id	The Id of the Keyword

Update a keyword

Update a keyword to the storage by putting a keyword object.

HTTP Method	PUT	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/id/{id}	
Path params	number	The number that the keyword will be routed to.
	platformId	The Id of the platform

	partnerId	The Id of the partnerId
	id	The Id of the Keyword
Consumable Resource	A keyword data object without the Id.	

List keywords by number, platformId and partnerId

Gets a list of keywords that are mapped within a certain number and that has a certain platformId and a certain partnerId.

HTTP Method	GET	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}	
Path params	number	The number that the keywords are routed to.
	platformId	The Id of the platform
	partnerId	The Id of the partnerId

Remove keyword

Deletes a keyword from the storage

HTTP Method	DELETE	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/id/{id}	
Path params	number	The number that the keywords are routed to.
	platformId	The Id of the platform
	partnerId	The Id of the partnerId
	id	The Id of the Keyword

Get keyword availability

Verify if a certain keyword is available or not.

HTTP Method	GET	
URI	/number/{number}/keyword/platform/{platformId}/partner/{partnerId}/getKeyword	
Path params	number	The number that the keywords are routed to.

	platformId	The Id of the platform
	partnerId	The Id of the partnerId
	id	The Id of the Keyword
Query params	keyword	The keyword string to be checked
	start	Time when the keyword will be active. The value should be a String that contains a date which is formatted to RFC3339. e.g. 2010-03-30T12:59:40+02:00 or 2010-03-30T10:59:40Z (UTC)
	end	Time when the keyword will be inactive. The value should be a String that contains a date which is formatted to RFC3339. e.g. 2010-03-30T12:59:40+02:00 or 2010-03-30T10:59:40Z (UTC)
Expected Responses	HTTP 204 (empty body)	If the keyword is available
	HTTP 409 (empty body)	If the keyword is not available

Data types

Keyword data

The keyword data describes the mapping of a certain keyword.

Parameter	Data type	Description
id	String	[AUTOGENERATED] The unique id for the keyword. This is generated when the keyword is created.
refId	String	[OPTIONAL] Id supplied by the client.
type	String Constant	This should be KEYWORD_ROUTE .
keyword	String	[OPTIONAL*] The keyword string itself. *Only if the keywordType is DEFAULT. Mandatory otherwise.
gateIds	List<String>	The gateId that will receive the MoMessage.
keywordType	String Constant	Only the following constants can be used: EQUALS: It means that the incoming MoMessage must contain exactly the keyword string declared in this keyword data.

		<p>STARTS_WITH: It means that the content of the MoMessage must begin with the keyword declared in this keyword data.</p> <p>FIRST_WORD: It means that the MoMessage must have exclusively the keyword as a first word in the content.</p> <p>DEFAULT: It means that any content within the MoMessage will be received.</p>
active	Boolean	[DEFAULT VALUE: true] true if active otherwise false which indicates inactive.
number	NumberString	Either a shortCode or a longnumber formatted as a MSISDN
start	Date	[OPTIONAL] The time when the keyword should start to be active
end	Date	[OPTIONAL] The time when the keyword should end to be active.
platformId	String	The Id of the platform.
platformPartnerId	String	The Id of the partner.
platformServiceType	String	[OPTIONAL] The type of the platform service.
platformServiceId	String	[OPTIONAL] The Id of the platform service.
shared	Boolean	[DEFAULT VALUE: false] Indicates if the keyword may be registered multiple times.
notifyStop	Boolean	Indicates that stop notifications should be forwarded for this keyword.
description	String	[OPTIONAL] Description of the keyword.
customParameters	KeyValue	[ADVANCED] Additional parameters may be specified if needed. Support will advise you if you need to use custom parameters.

Example:

Json:

```
{
  "type": "KEYWORD_ROUTE",
  "id": "abc123",
  "refId": "myrefid",
  "gateIds": [
```

```

        "xd9Vhy9v"
    ],
    "platformId": "MY_PLATFORM",
    "platformPartnerId": "MY_PARTNER",
    "platformServiceType": "",
    "platformServiceId": "",
    "customParameters": {},
    "number": "SE-1234",
    "keyword": "BANAN",
    "keywordType": "EQUALS",
    "active": true,
    "start": "2015-02-17T00:00:00Z",
    "end": "2099-02-17T00:00:00Z",
    "shared": false,
    "description": "Test keyword"
}

```

Error Codes

Error Code	Message
104000	UNKNOWN_ERROR
104401	KEYWORD_BUSY
104402	KEYWORD_NOT_FOUND
104410	INVALID_KEYWORD_ID
104420	INVALID_KEYWORD_DATA
104421	INVALID_KEYWORD_DATA_NUMBER
104422	INVALID_KEYWORD_DATA_PLATFORM_ID
104423	INVALID_KEYWORD_DATA_PARTNER_ID
104424	INVALID_KEYWORD_DATA_ID
104425	INVALID_KEYWORD_TYPE
104426	INVALID_START_END_DATE
104427	INVALID_KEYWORD_DATA_KEYWORD
104428	SHARED_MAY_NOT_BE_UPDATED
104429	KEYWORD_TYPE_MAY_NOT_BE_UPDATED
104430	KEYWORD_MAY_NOT_CHANGE_ON_UPDATE
104431	KEYWORD_FIRST_WORD_CONFLICT

Appendix 1

The following hosts are currently used for outgoing messaging.

Hostname(s)	IP address(es)
socks1.sp247.net	195.84.162.34
socks2.sp247.net	194.71.165.71
socks3.sp247.net	195.84.162.16
socks4.sp247.net	194.71.165.98
socks5.sp247.net	195.84.162.3
socks6.sp247.net	194.71.165.122
s1.n-eu.linkmobility.io	213.242.87.36
s2.n-eu.linkmobility.io	213.242.87.37
s3.n-eu.linkmobility.io	213.242.87.38
s4.n-eu.linkmobility.io	213.242.87.39
s5.n-eu.linkmobility.io	213.242.87.40

s6.n-eu.linkmobility.io	213.242.87.41
s1.c-eu.linkmobility.io	62.67.62.101
s2.c-eu.linkmobility.io	62.67.62.102
s3.c-eu.linkmobility.io	62.67.62.103
s4.c-eu.linkmobility.io	62.67.62.104
s5.c-eu.linkmobility.io	62.67.62.105
s6.c-eu.linkmobility.io	62.67.62.106
s1.s-eu.linkmobility.io	217.163.95.196
s2.s-eu.linkmobility.io	217.163.95.197
s3.s-eu.linkmobility.io	217.163.95.198
s4.s-eu.linkmobility.io	217.163.95.199
s5.s-eu.linkmobility.io	217.163.95.200
s6.s-eu.linkmobility.io	217.163.95.201
s1.no.linkmobility.io	213.242.87.68
s2.no.linkmobility.io	213.242.87.69
s3.no.linkmobility.io	213.242.87.70
s4.no.linkmobility.io	213.242.87.71
s5.no.linkmobility.io	213.242.87.72
s6.no.linkmobility.io	213.242.87.73
s1.deb.linkmobility.io	62.67.62.68 (will be decommissioned after 2023-08-31)
s2.deb.linkmobility.io	62.67.62.69 (will be decommissioned after 2023-08-31)
s3.deb.linkmobility.io	62.67.62.70 (will be decommissioned after 2023-08-31)
s4.deb.linkmobility.io	62.67.62.71 (will be decommissioned after 2023-08-31)
s5.deb.linkmobility.io	62.67.62.72 (will be decommissioned after 2023-08-31)
s6.deb.linkmobility.io	62.67.62.73 (will be decommissioned after 2023-08-31)

Appendix 2

Supported TLS versions

From 2020-11-15 TLS 1.2 or higher will be required for all TLS connections.

Support for TLS 1.0 and 1.1 will be discontinued. Versions 1.0 and 1.1 of TLS are older protocols that have been deprecated and are considered security risks in the Internet community.

LINK strongly recommends using TLS if unencrypted connections are being used today. HTTP is deprecated as of 2020-09-01 by LINK, and will be removed in the future. Date for HTTP removal is not yet decided.

Changelog of this document

Date	Version	Author	Changes
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2019-12-27	1.0	EP	Initial version
2020-08-28	1.1	HZ	Added info regarding supported TLS
2021-02-19	1.2	TL	The URL for developers, From HTTP to HTTPS
2021-04-29	1.3	TL	Changed to new homepage URL
2023-06-23	1.4	FS	Updated some IPs and URLs as legacy
2023-10-12	2.0	KCN	Added OAuth 2.0 authentication. Added eu.linkmobility.io endpoint.