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## LINK Mobility SMS REST API

MO messages

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<http://www.linkmobility.com/developers/>

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## Before you begin

Please make sure you have provided to Link Mobility Support an URL where Common shall deliver your messages.

Please make an opening in your firewall if necessary, so that Common can connect to your system. For a list of the addresses Common will connect from, see below.

## Scope of this document

This document will describe the Application Programming Interface (API) to receive text messages through the Link Mobility “Common” platform. Sending messages is described in a separate document.

Common is a REST API. A familiarity with REST APIs is assumed.

Messages will be delivered in JSON format. A basic familiarity with JSON is assumed.

## Capabilities of “Common” platform

Common is a high-capacity, high-availability SMS gateway designed to let you send and receive SMS Text messages. Messages can contain any character in the UTF-8 2-byte character set.

## Terms and glossary

### MO message

Mobile Originated message. Refers to any text message sent from an end-user’s handset to you.

### IP addresses

When delivering a message to you, the requests can be coming from several different IP addresses.

Appendix 1 contains the hostnames and IP addresses that are currently active.

Please configure your firewalls so that these hosts/networks can connect to your systems to deliver messages.

### Character encoding

All communication to and from Common will be in UTF-8 encoding.

### KeyValue

Contains parameters and values in a JSON object.

### Example

```
{ "key1": "value1", "key2": "value2" }
```

## Receiving MO messages

When Common forwards an MO message to you, it will be POST:ed to your service, in either XML or JSON formats. The format is described in the following table:

Parameter	Data type	Description
<b>destination</b>	String	The shortnumber the message was sent to. Prefixed by a two-letter country code.
<b>subNumber</b>	Integer	If subnumbers are used, the subnumber will be here.
<b>source</b>	String	The phone number of the sender, in MSISDN format (international format)
<b>content</b>	Content	Contains information about the content (text) of the message. See content table below.
<b>operator</b>	String	The telecom operator Common received the message from.
<b>timestamp</b>	DateTime	The timestamp when Common received the message from the operator. Formatted as RFC3339.
<b>messageId</b>	String	Common's internal message ID for this message.
<b>operatorTimestamp</b>	DateTime	The operator-supplied timestamp for the message.
<b>operatorMessageId</b>	String	The operator-supplied message ID for the message.
<b>route</b>	Route	Information on the keyword the message has been matched to, and where the message was routed afterwards. Most fields in this structure are included for debugging purposes, with the exception of "keyword", which contains the keyword matched. The content of route will differ depending on the type of matching used.
<b>gateCustomParameters</b>	KeyValue	If there are custom parameters required for delivery, they will be here. Usually blank.
<b>customParameters</b>	KeyValue	Information from the SMSC which might be mirrored information from other fields, for debugging.

content parameter	Data type	Description
<b>type</b>	String	The type of message. Will usually be "SMS" or "MMS".
<b>userData</b>	String	The content of the message sent by the end-user.
<b>encoding</b>	String	The encoding of the message. Will usually be "TEXT".

route parameter	Data type	Description
<b>type</b>	String	Contains information on how the message was routed to you. Contains KEYWORD_ROUTE if the message matched a keyword, or SUBNUMBER_ROUTE if the message matched a subnumber.
<b>id</b>	String	The ID of either the subnumber or the keyword matched.
<b>refId</b>	String	A reference ID for this keyword or subnumber route. This string can be set by Support if you want to use it for routing internally.
<b>gateIds</b>	<List>String	A list of the gate(s) this keyword or subnumber forwards to.
<b>platformId</b>	String	The platformId of the platform which received this message. Will usually be "SMSC".
<b>platformPartnerId</b>	String	Your partnerId
<b>platformServiceType</b>	String	Can be set to any string by Support. Used to differentiate different types of services on your end, if needed.
<b>platformServiceId</b>	String	Can be set to any string by Support. Used to differentiate different services on your end, if needed.
<b>customParameters</b>	KeyValue	Any custom parameters needed for this message. Usually blank.
<b>number</b>	String	The shortnumber this routing rule applies to.
<b>startRange</b>	String	Only if subnumbers are used. Contains the start of the range of subnumbers matched.
<b>stopRange</b>	String	Only if subnumbers are used. Contains the end of subnumbers matched.
<b>keyword</b>	String	Only if keyword is used. Contains the keyword that was matched.
<b>keywordType</b>	String	Contains the type of matching used for this keyword. Support will advise you on the different types of keyword types when setting up the keyword, if needed.
<b>active</b>	Boolean	Whether the keyword is active. Will always be true.
<b>start</b>	DateTime	The start date of the keyword. Will always be in the past.
<b>end</b>	DateTime	The expiry date of the keyword. Will always be in the future.

route parameter	Data type	Description
shared	Boolean	Whether this keyword will forward to multiple services. With the exception of STOP services, this will always be false.
description	String	Human-readable description of the service.

## Examples

For most purposes, you are mainly interested in the “source”, “route”:”keyword”, and “content”:”userData” fields. Other fields are included for advanced or debugging purposes.

In these examples, some ID numbers have been replaced with 0.

### Example of MMS content

**MmsContent** object has following properties:

Parameter	Data type	Description
subject	<a href="#">String</a>	The mms subject
items	Item[]	This is the MMS attachments. See allowed values below in Item.

**The abstract Item class** has following properties:

Parameter	Data type	Description
contentType	<a href="#">ContentType</a>	The attachment content type
contentId	<a href="#">String</a>	The attachment content id

**TextItem** extends Item and has following properties:

Parameter	Data type	Description
type	Constant	TEXT
content	String	The text content

**BinaryItem** extends Item and has following properties:

Parameter	Data type	Description
type	Constant	BINARY
content	byte[]	The binary content. The transfer encoding is Base64

Example of content:

```
{
  "content":
  {
    "type": "MMS",
    "subject": "Test",
    "items":
    [
      {
        "contentType": "application/smil;Name=smil.xml",
        "contentId": "<smil>",
        "type": "TEXT",
        "content": "<smil>....</smil>"
      },
      {
        "contentType": "image/jpeg;Name=131924.jpeg",
        "contentId": "<0>",
        "type": "BINARY",
        "content": "/9j/4AAQS...TS1AH/9k="
      },
      {
        "contentType": "text/plain;Name=text_0.txt;Charset=UTF-8",
        "contentId": "<text_0.txt>",
        "type": "TEXT",
        "content": "Test"
      }
    ]
  }
}
```

#### Example sent to a keyword

This example is an example of a user with phone number +4741560067 sending a message to shortnumber 2333 with the text "Bclt hello".

```
{
  "destination": "NO-2333",
  "subNumber": null,
  "source": "+4741560067",
  "content": {
    "type": "SMS",
    "userData": "Bclt hello",
    "encoding": "TEXT"
  },
  "operator": "no.telenor",
  "timestamp": "2015-11-17T14:28:40Z",
  "messageId": "0",
}
```

```
"operatorTimestamp": "2015-11-17T14:28:40Z",
"operatorMessageId": "0",
"route": {
  "type": "KEYWORD_ROUTE",
  "id": "0",
  "refId": "Internal Keyword Reference",
  "gateIds": [
    "0"
  ],
  "platformId": "0",
  "platformPartnerId": "0",
  "platformServiceType": "serviceType",
  "platformServiceId": "Internal Service ID",
  "customParameters": {},
  "number": "NO-2333",
  "keyword": "BCLT",
  "keywordType": "FIRST_WORD",
  "active": true,
  "start": "2015-11-17T00:00:00Z",
  "end": "2016-11-17T00:00:00Z",
  "shared": false,
  "description": "BCLT service"
},
"gateCustomParameters": {},
"customParameters": {
  "platformPartnerId": "0",
  "suggestedOperator": "no.telenor",
  "moReferenceId": "0",
  "queued": "2015-11-17 15:28:40",
  "serviceCentreTimeStamp": "20151117152840",
  "platformId": "0"
}
}
```



### Example sent to a subnumber

This example shows how the request will look when the message is sent to a subnumber rather than a keyword. This example is sent from +4741560067 to shortcode 2333, subnumber 9999999989. The text of the message is "Hello, Dolly!"

```
{
  "destination": "NO-2414",
  "subNumber": 9999999989,
  "source": "+4741560067",
  "content": {
    "type": "SMS",
    "userData": "Hello, Dolly!",
    "encoding": "TEXT"
  },
  "operator": "no.telenor",
  "timestamp": "2015-11-18T11:41:23Z",
  "messageId": "0",
  "operatorTimestamp": "2015-11-18T11:41:23Z",
  "operatorMessageId": "0",
  "route": {
    "type": "SUBNUMBER_ROUTE",
    "id": "0",
    "refId": "SubnumberRange Definition",
    "gateIds": [
      "0"
    ],
    "platformId": "0",
    "platformPartnerId": "0",
    "platformServiceType": "Subnumber messages",
    "platformServiceId": "0",
    "customParameters": {},
    "number": "NO-2333",
    "startRange": "9999999980",
    "stopRange": "9999999989"
  },
  "gateCustomParameters": {},
  "customParameters": {
    "platformPartnerId": "0",
    "suggestedOperator": "no.telenor",
    "moReferenceId": "0",
    "queued": "2015-11-18 12:41:23",
    "serviceCentreTimeStamp": "20151118124123",
    "platformId": "0"
  }
}
```

## 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
s2.deb.linkmobility.io	62.67.62.69
s3.deb.linkmobility.io	62.67.62.70
s4.deb.linkmobility.io	62.67.62.71
s5.deb.linkmobility.io	62.67.62.72
s6.deb.linkmobility.io	62.67.62.73

## Changelog of this document

<b>Date</b>	<b>Version</b>	<b>Author</b>	<b>Changes</b>
<b>2015-11-24</b>	1.0	BMS	Initial version
<b>2017-06-07</b>	1.1	KCN	Updated document name and minor changes
<b>2019-07-03</b>	1.2	EP	Minor changes and added Appendix 1
<b>2019-08-19</b>	1.3	PN	Added MMS
<b>2019-09-25</b>	1.4	KCN	Clarifications in Appendix 1