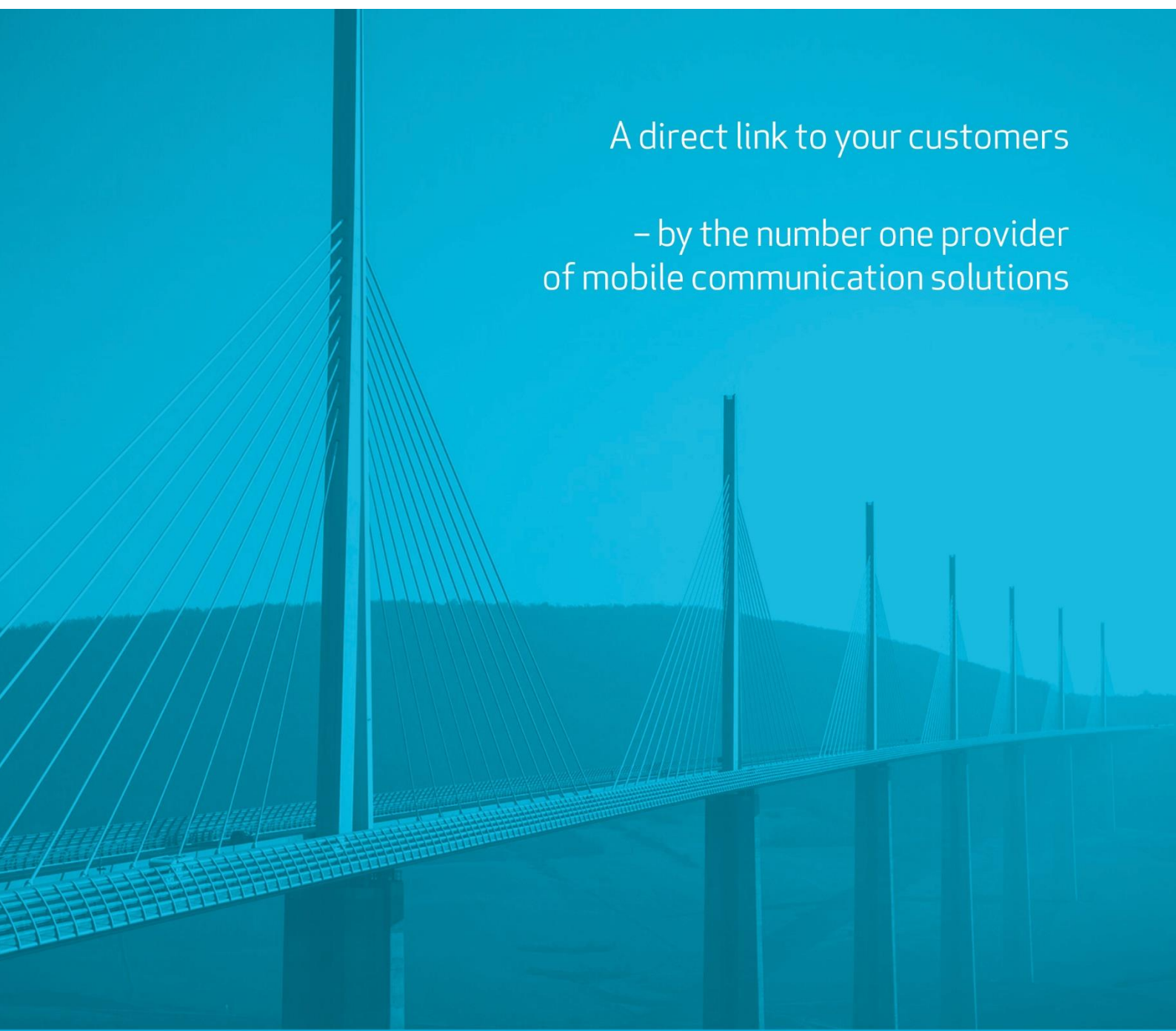




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LINK Mobility

Common Platform API Description

URL Shortener

Version 2.1; Last updated December 05, 2024

For help, contact support@linkmobility.com

The most up-to-date version of this document is available at
<https://www.linkmobility.com/developer/>

Contents

Before you begin	4
Scope of this document	4
Capabilities of “Common” platform	4
IP addresses	4
Character encoding.....	4
Available domains	4
cpn.is (CPN_IS)	4
cpgn.is (CPGN_IS).....	5
Implementations.....	5
Sequential (SEQ)	5
Dynamic (DYN)	5
Ranged dynamic (RNG)	5
Data types	5
Short URL request data	5
URL Data.....	6
Range request data	6
URL Shortener callback data	6
Error response.....	6
API basics	7
Base URL.....	7
Authentication	7
HTTP methods, statuses and actions	8
Functions.....	8
Create short URL (SEQ and DYN)	8
Create short URL (RNG)	9
Claim range	9
Update range	10
Get range	10
Delete range.....	10
Result codes	11
Examples	12
Create a short URL	12
Claim a range	12

Create a short URL within a range	13
Appendix 1	14
Supported TLS versions.....	14
Changelog of this document.....	14

Before you begin

Please make sure Link Mobility Support have provided you with **Username**, **Password**, **PlatformId**, **PartnerId** and – if you want to track clicks – a **Gateld**. To provide a Gateld support will need a result receiver URL to which callback data can be delivered. 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 create and track short URLs.

Common is a REST API. Responses will be delivered in JSON format. A basic familiarity with REST APIs and JSON is assumed.

Capabilities of “Common” platform

Common is a high-capacity, high-stability service which will allow you to create and track activity of shortened URLs.

IP addresses

When delivering callbacks, the requests will be coming from the following IP addresses:

Hostname	IP address
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

Please add openings in your firewalls so that these six hosts can connect to you.

Character encoding

All communication to and from Common will be encoded using **UTF-8**.

Available domains

We are currently offering short URLs on the following domains.

cpn.is (CPN_IS)

Abbreviation of “coupon”. Associated with keyword “CPN_IS”.

Example: <http://cpn.is/aB5r62>.

cpgn.is (CPGN_IS)

Abbreviation of “campaign”. Associated with keyword “CPGN_IS”.

Example: <http://cpgn.is/y7maQ1>.

Implementations

There are three types of short URLs with different properties.

Sequential (SEQ)

- Variable (increasing) key length.

Note:SEQ counters generate short links that may be only 4 characters long, making them vulnerable to brute-force attacks. SEQ counters should only be used for non-sensitive public web pages. Avoid using SEQ counters for links containing GDPR-sensitive or confidential information.

- Default lifetime: 30 days
- Maximum lifetime: 1000 days

Dynamic (DYN)

- Random key
- Key will always be 7 chars long
- Default lifetime: 30 days
- Maximum lifetime: 365 days

Ranged dynamic (RNG)

- Partner specific ranges, requires registration (see HTTP Methods...)
- Allows default URL to redirect to for unused keys within range (custom 404 page)
- Key randomly selected from range
- Key will always be 8 chars long
- Default lifetime: 30 days
- Maximum lifetime: 365 days
- Requires specific rights

Data types

Short URL request data

This is the data needed to create a short URL.

Parameter	Type	Description
url	URLType	URL to shorten
lifetime	Integer (Optional)	Short URL lifetime in days (see "Implementations" for default and maximum allowed value)
callbackGateIds	List<String> (Optional)	Gates to POST link click data to
customParameters	KeyValue (Optional)	Parameter map that will be passed to gate along with click statistics/data

URL Data

Data associated with an existing short URL.

Parameter	Type	Description
longUrl	URL	Redirect URL
createdAt	Long	Created timestamp
gateIds	List<String>	Gates used for link click data
customParameters	KeyValue	Parameter map

Range request data

Fallback parameters for unused keys in a range registered by you.

Parameter	Type	Description
defaultUrl	URL (Optional)	URL to redirect to for unused IDs in range
callbackGateIds	List<String> (Optional)	Gates to POST link click data to
customParameters	KeyValue (Optional)	Parameter map that will be passed to gate along with click statistics/data

URL Shortener callback data

Forwarded to you when a user has clicked a shortened URL.

Name	Type	Description
shortUrl	URL	The shortened URL
longUrl	URL	The original URL
time	Date	Time of click
userAgent	String	OS and browser data
language	String	User language
referrer	String	Where the request originated from
customParameters	KeyValue	From Short URL creation

Error response

Object describing an error.

Parameter	Data type	Description
status	Integer	See Status codes.
description	String	Textual description of the problem.
translatedDescription	String	Textual description of the problem based on "Accept-Language".

API basics

Base URL

https://wsx.sp247.net/urlshortener

Security Reminder: Sequential links (SEQ) are designed for low-security, public-facing applications. For GDPR compliance and sensitive data protection, always prefer DYN or RNG implementations.

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*.

HTTP methods, statuses and actions

Method	Resource found	No resource	Invalid request	Invalid login	No access
GET	200 OK Returns resource	404 Not found Returns Error Response	400 Bad request Returns Error Response	401 Un-authorized Returns Error Response	403 Forbidden Returns Error Response
POST	409 Conflict Returns Error Response	201 Created Returns a "Location" header	400 Bad Request Returns Error Response	401 Un-authorized Returns Error Response	403 Forbidden Returns Error Response
PUT	200 OK	404 Not found Returns Error Response	400 Bad Request Returns Error Response	401 Un-authorized Returns Error Response	403 Forbidden Returns Error Response
DELETE	405 Method not allowed	204 No content	400 Bad Request Returns Error Response	401 Un-authorized Returns Error Response	403 Forbidden Returns Error Response

Functions

Create short URL (SEQ and DYN)

POST /platform/[platformId]/partner/[partnerId]/type/[implId]

URI Parameter	Data type	Description
platformId	String	Provided by LINK Mobility.
partnerId	String	Provided by LINK Mobility.
implId	String	A string describing implementation and

URI Parameter	Data type	Description
		domain. Can be CPN_IS_SEQ, CPN_IS_DYN, CPGN_IS_SEQ or CPGN_IS_DYN .

Note: When using SEQ counters (e.g., CPN_IS_SEQ or CPGN_IS_SEQ), links may be of insufficient length, leading to increased vulnerability to brute-force attempts. It is strongly recommended to use DYN or RNG for any use case involving sensitive or private data.

Response will contain header:

Location: [domain]/[key]

Create short URL (RNG)

POST /platform/[platformId]/partner/[partnerId]/type/[implId]
/range/[rangeId]

URI Parameter	Data type	Description
platformId	String	Provided by LINK Mobility.
partnerId	String	Provided by LINK Mobility.
implId	String	A string describing implementation and domain. Can be CPN_IS_RNG or CPGN_IS_RNG.
rangeId	Integer	Range ID acquired when range was claimed.

Response will contain header:

Location: [domain]/[key]

Claim range

POST a Range request data object to reserve a range.

POST /platform/[platformId]/partner/[partnerId]/type/[implId]/claim

URI Parameter	Data type	Description
platformId	String	Provided by Link Mobility.
partnerId	String	Provided by Link Mobility.
implId	String	A string describing implementation and domain. Can be CPN_IS_RNG or CPGN_IS_RNG.

Response will contain header:

Location: /platform/[platformId]/partner/[partnerId]/type/[implId]
/range/[rangeId]

Update range

PUT a Range request data object to update a range.

PUT /platform/[platformId]/partner/[partnerId]/type/[implId]

/range/[rangeId]

URI Parameter	Data type	Description
platformId	String	Provided by Link Mobility.
partnerId	String	Provided by Link Mobility.
implId	String	A string describing implementation and domain. Can be CPN_IS_RNG or CPGN_IS_RNG.
rangeId	Integer	Range ID acquired when range was claimed.

Get range

GET a Range request data object.

GET /platform/[platformId]/partner/[partnerId]/type/[implId]
/range/[rangeId]

URI Parameter	Data type	Description
platformId	String	Provided by Link Mobility.
partnerId	String	Provided by Link Mobility.
implId	String	A string describing implementation and domain. Can be CPN_IS_RNG or CPGN_IS_RNG.
rangeId	Integer	Range ID acquired when range was claimed.

Delete range

DELETE a Range request data object.

DELETE /platform/[platformId]/partner/[partnerId]/type/[implId]
/range/[rangeId]

URI Parameter	Data type	Description
platformId	String	Provided by Link Mobility.
partnerId	String	Provided by Link Mobility.
implId	String	A string describing implementation and domain. Can be CPN_IS_RNG or CPGN_IS_RNG.
rangeId	Integer	Range ID acquired when range was claimed.

Result codes

Result code	Description
107000	Unknown error
107001	Service not initiated
107002	Configuration error
107050	Storage error
107100	Invalid authentication
107101	Access denied

Result code	Description
107102	Illegal range
107200	Invalid platform ID
107201	Invalid partner ID
107202	Invalid implementation
107203	Type not implemented
107204	Invalid URL
107205	Invalid lifetime
107206	Invalid range ID
107207	Invalid gate
107208	Short URL not found
107209	Implementation already exists
107210	Implementation not found
107211	Invalid URL key
107212	Invalid version
107300	Out of keys
107500	Success

Examples

Create a short URL

Run the following command, changing placeholder values to the parameters provided by support.

```
curl -XPOST -i -u <yourUsername>:<yourPassword> \
-H "Content-Type:application/json" \
-d "{\"url\":\"http://www.linkmobility.com\", \"lifetime\":10,
\"callbackGateIds\":[\"<yourGate1>\", \"<yourGate2>\"]}" \
http://wsx.sp247.net/urlshortener/platform/<yourPlatformId>/partner/
<yourPartnerId>/type/CPN_IS_SEQ
```

If your user has the proper rights, the response will look something like this:

```
HTTP/1.1 201 Created
Date: Mon, 21 Dec 2015 13:53:30 GMT
Location: http://cpn.is/6Ue
Content-Length: 0
Content-Type: text/plain
```

The URL <http://cpn.is/6Ue> now redirects to <http://www.linkmobility.com>.

Claim a range

Run the following command, changing placeholder values to your own.

```
curl -XPOST -i -u <yourUsername>:<yourPassword> \
-H "Content-Type:application/json" \
-d "{\"defaultUrl\":\"http://www.linkmobility.com\",
\"callbackGateIds\": [\"xd9Vhy9v\", \"baWInE88\"]}" \
http://wsx.sp247.net/urlshortener/platform/<yourPlatform>/partner/
<yourPartner>/type/CPN_IS_RNG/claim
```

This will generate a response similar to this:

```
HTTP/1.1 201 Created
Date: Mon, 21 Dec 2015 14:11:31 GMT
Location: http://wsx.sp247.net/urlshortener/platform/SMSC/partner/1
/type/CPN_IS_RNG/range/20
Content-Length: 0
Content-Type: text/plain
```

Range ID 20 is now reserved for your use. Any short URLs in your range that are not assigned to a specific URL will be directed to the default address provided above.

Create a short URL within a range

Run the following command, changing placeholder values to the parameters provided by support:

```
curl -XPOST -i -u <yourUsername>:<yourPassword> \
-H "Content-Type:application/json" \
-d "{\"url\":\"http://www.google.com\", \"lifetime\":10,
\"callbackGateIds\":[\"<yourGate1>\", \"<yourGate2>\"]}" \
http://wsx.sp247.net/urlshortener/platform/<yourPlatformId>/partner/
<yourPartnerId>/type/CPN_IS_RNG/rangeId/20
```

If your user has the proper rights, the response will look something like this:

```
HTTP/1.1 201 Created
Date: Mon, 21 Dec 2015 13:53:30 GMT
Location: http://cpn.is/161U1eeR
Content-Length: 0
Content-Type: text/plain
```

The URL <http://cpn.is/161U1eeR> now redirects to <http://www.google.com> for 10 days. When that time has passed, the short URL will redirect to <http://www.linkmobility.com> instead.

Appendix 1

Supported TLS versions

To ensure the highest level of security and performance, TLS 1.3 is strongly recommended for all connections to the API. TLS 1.3 offers several advantages over previous versions, including:

- Improved Performance: Faster handshake process, reducing connection latency.
- Stronger Security: Removal of obsolete and vulnerable cryptographic algorithms (e.g., SHA-1, RC4, and static RSA).
- Forward Secrecy: Enhanced protection of session keys, preventing decryption even if the server's private key is compromised.
- Simplified Protocol: Reduced complexity leads to fewer implementation errors and better maintainability.

Although TLS 1.2 is still supported for backward compatibility, it is considered legacy. Clients and servers should be updated to use TLS 1.3 wherever possible.

HTTP is deprecated and LINK **strongly recommend** using HTTPS if HTTP is being used today.

Supported Ciphers

TLS	Ciphers
1.3	TLS_AES_128_GCM_SHA256 (0x1301) TLS_AES_256_GCM_SHA384 (0x1302) TLS_CHACHA20_POLY1305_SHA256 (0x1303)
1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f) TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (0xc030) TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 (0xcca8) Support for the following ciphers below is removed 2025-10-15: TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 (0x9e) TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 (0x9f) TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xc028) TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xc027) TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013) TLS_RSA_WITH_AES_256_CBC_SHA256 (0x3d) TLS_RSA_WITH_AES_128_CBC_SHA256 (0x3c)

Changelog of this document

Date	Version	Author	Changes
2015-12-21	1.0	JA	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
2023-09-22	2.0	KCN	Added OAuth 2.0 authentication
2024-12-05	2.1	HZ	Added security recommendations regarding SEQ counters and their limitations.
2025-07-03	2.2	KCN	Updated Appendix 1, TLS changes.