**ULIP Integration Requirement Document**

Version No.: 1.0

Date: 18/08/2021

Project Name: ULIP

This document contains proprietary information of NEC corporation India Pvt Ltd**.** Unauthorized access, copying and replication are prohibited. This document must not be copied in whole or part by any means, without the written authorization of NEC corporation India Pvt Ltd, Noida, India.

Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Date | Author | Reviewer | Significant Changes |
| 1.0 | 18/08/2021 | Hasan Mhad Khan |  | Baseline Version |
|  |  |  |  |  |

**Table of Contents**

[Introduction 4](#_Toc80183830)

[1.1 Purpose 4](#_Toc80183831)

[The Overall Description 4](#_Toc80183832)

[1.2 Data Integration between LDB System and ULIP application 4](#_Toc80183833)

[1.3 LDB/01 4](#_Toc80183834)

[1.3.1 Technical Approach 5](#_Toc80183835)

[1.4 Data Transmission & Authentication Mechanism 11](#_Toc80183836)

# 

# Introduction

## Purpose

The purpose of this document is to define and provide details for accessing API for

LDB system from ULIP system.

This document details the following points:

1. **Data Integration between LDB and ULIP web service**: Identification of operational points where data integration between LDB and ULIP web service will be needed.
2. **Technical Approach** for performing Data Integration

# The Overall Description

User will share the information such as **container number** based on data send by user ULIP system will call respective **LDB** API for accessing information.

Following are the point for accessing container information: -

1. This API will share data based on information provided by user.
2. ULIP will expose API for getting data from LDB API.
3. **LDB/01** API will take **container Number** from user and get data from LDB API.

## Data Integration **between** LDB System and ULIP application

User will share information to ULIP system based on data shared ULIP will provide data to user.

## LDB/01

This API will take **container number** and connect with LDB API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **containerNumber** | container number as available in LDB system. | ^[a-zA-Z0-9]{8,11}$ | Required | Min 8  Max 11 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **container** **number** for which detail is required.
3. LDB API will share details of container tracking information which exist in LDB system in JSON format.
4. LDB Integration will add response from LDB system as value to **response** key in response body.
5. ULIP system will provide the data in JSON Object format in response body.

**Example:**

Container number **ACMP1000010** is shared by ULIP system, then LDB-integration will make a request to LDB API.

**Request:**

The request must be of the following format, where container number is passed within the URL body in JSON format.

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/LDB/01>

{"containerNumber": "ACMP1000010"}

**Curl URL**

curl --location --request POST 'https://www.ulip.dpiit.gov.in/ulip/v1.0.0/LDB/01' \

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyOTI2ODM4NSwiYXBwcyI6ImRhdGFwdXNoIn0.x3REIfQ7GGF4-ysUexOBegV\_ON7Ex4RitT62ipKnAI\_RyMEfQgdV\_DBzAJnz118yoieTAqsRyIozj-pAwudB\_w' \

--header 'Content-Type: application/json' \

--header 'Accept: application/json' \

--data-raw '{"containerNumber": "ACMP1000010"}'

For obtaining authentication token, refer [Section 1.6](#_Data_Transmission_&)

**Response**

To acknowledge the above request, ULIP will send the below response -

1. **In case of invalid format**
2. **Invalid container number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: containerNumber. Format should follow [A-Z]{4}[0-9]{4,7}"

}

1. **In case of container number does not exist in LDB system**

{

"response": [

{

"response": {

"cntrDetail": null,

"dpd\_dpe": null,

"last\_event": null,

"res\_Message": "NO RECORD FOUND",

"trackLog": null

},

"responseStatus": "ERROR"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case container number exist**



**Status Code 200**: container data response

**Status Code 400**: Bad request (Invalid json syntax, invalid json key)

**Status Code 401 or 403**: Unauthenticated or Unauthorized

**Status Code 500**: Some internal server error occurred

**Status Code 502**: Server is not responding.

## Data Transmission & Authentication Mechanism

All data exchange would be done over secure HTTP (HTTPS). Request from ULIP's system would be made in LDB system through a data exchange URL that has following form:

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/LDB/01>

**Body:**

{"containerNumber": "ACMP1000014"}

Access to above data exchange URL would be authorized by use of a security mechanism implemented by the ULIP system. It is as follows:

* First time access: It would require a username and password [which would be shared with user beforehand]. Once user hit with valid user id and password, ULIP system will return a basic authorization token to user, using that token user will communicate with ULIP system until token will not get expired.

Brief summary of HTTP Basic Authentication is as follows:

First time when User will hit ULIP secured API through username and password for access token as follow-

***curl -X POST***

‘https://www.ulip.dpiit.gov.in/ulip/v1.0.0/user/login

***-H 'accept: application/json'***

***-H 'content-type: application/json'***

***-data ‘{"username":"xxxxxx","password":" XXxxx@12345"} ‘***

**Authorization:**

***Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJpbnRlcmNvbnQiLCJpYXQiOjE1ODU1NjYyMzcsImFwcHMiOiJkYXRhcHVzaCJ9.jb-23DbkWpz-3ptsuuZofzH-ce7jd0xR5WlkFfBPO\_Dzjop01dSx9OamqsjsgUAryLUPtUDiMX07oHG4L2AfFQ***

Upon successful authentication, the user would be logged into the ULIP system and get an access token. Though this token user can communicate with ULIP. This token has expiry time which represent user session. The session time out for the same to be fixed hour, generally it is for 30 minutes. If there is no request coming from user for 30 minutes, then session (token) will be expired and user need to re authenticate.

Using The above token, user can request ULIP system for container details as follow -

***curl --location --request POST 'https://www.ulip.dpiit.gov.in/ulip/v1.0.0/LDB/01' \***

***--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyOTI4MzQxMiwiYXBwcyI6ImRhdGFwdXNoIn0.2fanfJuecjmwyT0Z0-H3qLpA4bKEnurPXx5yFeV\_pw8h5Tbls5sBQFXu1Gq-FF5GMOfZV2a7EAOPvazmJC1QTw' \***

***--header 'Content-Type: application/json' \***

***--header 'Accept: application/json' \***

***--data-raw '{"containerNumber": "ACMP1000014"}'***