**ULIP Integration Document**

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Project Name: ULIP

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Revision History

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**Table of Contents**

[Introduction 4](#_Toc89166502)

[1.1 Purpose 4](#_Toc89166503)

[The Overall Description 4](#_Toc89166504)

[1.2 Data Integration between KALE System and ULIP application 4](#_Toc89166505)

[1.3 KALE/01 4](#_Toc89166506)

[1.3.1 Technical Approach 5](#_Toc89166507)

[1.4 KALE/02 8](#_Toc89166508)

[1.4.1 Technical Approach 8](#_Toc89166509)

[1.5 Data Transmission & Authentication Mechanism 12](#_Toc89166510)

# 

# Introduction

## Purpose

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

KALE system from ULIP system.

This document details the following points:

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

# The Overall Description

User will share the information such as Airway bill number based on data send by user ULIP system will call **KALE** API for accessing information.

Following are the point for accessing information: -

1. This API will share data based on information provided by user.
2. ULIP will expose API for getting data from KALE API.
3. **KALE/01** API will take MAWB number from user and get data from KALE API.
4. **KALE/02** API will take AWB and HAWB from user and get data from KALE API.

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

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

## KALE/01

This API will take **MAWB number** and connect with KALE API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **mawb** | Master airway bill as available in KALE system. | [0-9]{11} | Required | 11 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **MAWB** for which detail is required.
3. KALE API will share details of vehicle transaction information which exist in KALE system in JSON format.
4. ULIP system will provide the data in JSON Object format in response body.

**Example:**

MAWB 09898989833 is shared by ULIP system, then KALE-integration will make a request to KALE API.

**Request:**

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

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

{"mawb": "09898989833"}

**Curl URL**

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJhdWRpdHVzciIsImlhdCI6MTYzNzU1MDQzNCwiYXBwcyI6ImRhdGFwdXNoIn0.FZjy\_fQfrkfvOM4ycwx5PmI-Qz2dryaPsby2BNIRgyehBMYOhXkXL8FyXb-BgqavGwx40K12RzVXi7JdQm7GCQ' \

--header 'Accept: application/json' \

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

--data-raw '{"mawb": "09898989833"}'

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 MAWB**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: mawb. Format should follow [0-9]{11}"

}

1. **In case of mawb number does not exist in KALE system**

{

"response": [

{

"response": {

"Message": "An error has occurred."

},

"responseStatus": "ERROR"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case MAWB number exist**

{

"response": [

{

"response": {

"ARR": true,

"RCS": true,

"MANTimeStamp": "2013-09-30T02:05:00",

"FHL": false,

"NFD": true,

"RCFTimeStamp": "2013-09-29T07:35:00",

"DLV": false,

"FWB": false,

"FOHTimeStamp": "0001-01-01T00:00:00",

"EGMTimeStamp": "2013-09-30T02:30:00",

"FWBTimeStamp": "0001-01-01T00:00:00",

"BKD": true,

"BKDTimeStamp": "2013-09-29T16:00:00",

"RCSTimeStamp": "2013-09-29T14:00:00",

"FOH": false,

"MAWBNo": "09898989833",

"Pkgs": 10,

"ChWt": 1100.0,

"FHLTimeStamp": "0001-01-01T00:00:00",

"GrWt": 1000.0,

"NFDTimeStamp": "2013-09-30T10:00:00",

"EGM": true,

"CustomsClearance": false,

"DEP": true,

"ARRTimeStamp": "2013-09-30T06:35:00",

"DLVTimeStamp": "0001-01-01T00:00:00",

"RCF": true,

"CustomsClearanceTimeStamp": "0001-01-01T00:00:00",

"DEPTimeStamp": "2013-09-29T14:30:00",

"MAN": true,

"HAWBNo": "",

"ExpAcceptanceTemperature": null,

"ImpRecvdTemperature": null,

"Origin": null,

"Destination": null,

"FlightNo": null,

"FlightDate": null,

"CustomsStatus": null,

"CustomsClearanceDate": null,

"CustomsClearDate": null,

"ChargeableWt": null

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

**Status Code 200**: MAWB 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.

## KALE/02

This API will take **AWB and HAWB number** and connect with KALE API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **mawb** | Master airway bill as available in KALE system. | [0-9]{11} | Required | 11 |
| 2 | **hawb** | House airway bill as available in KALE system | [0-9]{12} | Required | 12 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **AWB and HAWB** for which detail is required.
3. KALE API will share details of vehicle transaction information which exist in KALE system in JSON format.
4. ULIP system will provide the data in JSON Object format in response body.

**Example:**

AWB 02368696795 and HAWB 501811201324 is shared by ULIP system, then KALE-integration will make a request to KALE API.

**Request:**

The request must be of the following format, where **AWB and HAWB** is passed within the URL body in JSON format.

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/KALE/02>

{

"awb":"02368696795",

"hawb":"501811201324"

}

**Curl URL**

curl --location --request POST 'https://www.ulip.dpiit.gov.in/ulip/v1.0.0/KALE/02' \

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJhdWRpdHVzciIsImlhdCI6MTYzNzU1MDQzNCwiYXBwcyI6ImRhdGFwdXNoIn0.FZjy\_fQfrkfvOM4ycwx5PmI-Qz2dryaPsby2BNIRgyehBMYOhXkXL8FyXb-BgqavGwx40K12RzVXi7JdQm7GCQ' \

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

--header 'Accept: application/json' \

--data-raw '{

"awb":"02368696795",

"hawb":"501811201324"

}'

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 AWB**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: awb. Format should follow [0-9]{11}"

}

1. **Invalid hawb**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: hawb. Format should follow [0-9]{12}"

}

1. **In case of awb number does not exist in KALE system**

{

"response": [

{

"response": {

"Message": "An error has occurred."

},

"responseStatus": "ERROR"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case HAWB number does not exist in KALE system**

{

"response": [

{

"response": {

"Message": "An error has occurred."

},

"responseStatus": "ERROR"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case AWB and HAWB number exist**

{

"response": [

{

"response": {

"ARR": false,

"RCS": false,

"MANTimeStamp": "0001-01-01T00:00:00",

"FHL": false,

"NFD": false,

"RCFTimeStamp": "0001-01-01T00:00:00",

"DLV": false,

"FWB": false,

"FOHTimeStamp": "0001-01-01T00:00:00",

"EGMTimeStamp": "0001-01-01T00:00:00",

"FWBTimeStamp": "0001-01-01T00:00:00",

"BKD": false,

"BKDTimeStamp": "0001-01-01T00:00:00",

"RCSTimeStamp": "0001-01-01T00:00:00",

"FOH": false,

"MAWBNo": "02368696795",

"Pkgs": 1,

"ChWt": 31.0,

"FHLTimeStamp": "0001-01-01T00:00:00",

"GrWt": 31.0,

"NFDTimeStamp": "0001-01-01T00:00:00",

"EGM": true,

"CustomsClearance": false,

"DEP": false,

"ARRTimeStamp": "0001-01-01T00:00:00",

"DLVTimeStamp": "0001-01-01T00:00:00",

"RCF": false,

"CustomsClearanceTimeStamp": "0001-01-01T00:00:00",

"DEPTimeStamp": "0001-01-01T00:00:00",

"MAN": false,

"HAWBNo": "501811201324",

"ExpAcceptanceTemperature": null,

"ImpRecvdTemperature": null,

"Origin": null,

"Destination": null,

"FlightNo": null,

"FlightDate": null,

"CustomsStatus": null,

"CustomsClearanceDate": null,

"CustomsClearDate": null,

"ChargeableWt": null

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

**Status Code 200**: 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 KALE system through a data exchange URL that has following form:

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

**Body:**

{"mawb": "09898989833"}

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 --location --request POST ' https://www.ulip.dpiit.gov.in/ulip/v1.0.0/user/login' \

--header 'Accept: application/json' \

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

--data-raw '{

"username": "xxxx",

"password": "xxxx@123"

}'

**Authorization:**

***Bearer***

***eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyNTIzMDQyNywiYXBwcyI6ImRhdGFwdXNoIn0.rhumwWJ8BWeeHe9CYmIV1UKyJk-kLHA\_ovX5Zi2OwxEv-td-KpxnfbKDI\_8FZsOoggqx3Al-Du1y2qMoUD7uzA'***

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 vehicle details as follow -

***curl -X POST \***

***https://www.ulip.dpiit.gov.in/ulip/v1.0.0/KALE/01 \***

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

***-H 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyNTIzMDQyNywiYXBwcyI6ImRhdGFwdXNoIn0.rhumwWJ8BWeeHe9CYmIV1UKyJk-kLHA\_ovX5Zi2OwxEv-td-KpxnfbKDI\_8FZsOoggqx3Al-Du1y2qMoUD7uzA' \***

***-H 'cache-control: no-cache' \***

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

***-H 'postman-token: 8e8a19a4-ea1e-6373-f616-e2e4af9a1338' \***

***-d ‘{"mawb": "09898989833"}'***