**ULIP Integration Requirement Document**

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Project Name: ULIP

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# 

# Introduction

## Purpose

The purpose of this document is to define and provide details for accessing API for ACMES system information from ULIP system.

This document details the following points:

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

# The Overall Description

User will share the information such as **AWB** **number, HAWB number** based on data send by user ULIP system will call respective **ACMES** API for accessing information.

Following are the point for accessing cargo information: -

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

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

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

## ACMES/01

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **awbnumber** | Master Airway bill Number as available in ACMES system. | [0-9]{11} | Required | Max 11 |

### Technical Approach

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

**Example:**

AWB number 40689348000 is shared by ULIP system, then ACMES-integration will make a request to ACMES API.

**Request:**

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

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

{

"awbnumber": "40689348000"

}

**Curl URL**

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

--header 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzMDQ5MTk0MiwiYXBwcyI6ImRhdGFwdXNoIn0.1NisXd9\_2Vp7WpRCyqix7k6zvn9YuQS56PCZ6lvpUr8TRfrcbfprMdBeZT8vsWFD7ZYKsXMpf876N74uPgELhA' \

--header 'accept: application/json' \

--header 'content-type: application/json' \

--data-raw '{

"awbnumber": "40689348000"

}'

For obtaining authentication token, refer [Section 1.5](#_Data_Transmission_&)

**Response**

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

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

{

"response": null,

"error": "true",

"code": "400",

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

}

1. **In case of AWB number does not exist in ACMES system**

{

"response": [

{

"response": {

"ExportTrackingData": {

"AWB": null,

"SHIPPING\_BILL": [],

"LOCATION\_DETAILS": [],

"XRAY\_DETAILS": [],

"ULD\_DETAILS": [],

"EGM\_DETAILS": []

}

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case AWB number exist**

{

"response": [

{

"response": {

"ExportTrackingData": {

"AWB": {

"Destination": "DXB",

"Packages": "24",

"GrossWeight": "464",

"ChargeableWeight": "464",

"TDGDateTime": "08/03/2021 16:57:00",

"BAGDateTime": "08/03/2021 21:13:00",

"GatePassDateTime": "N/A",

"HandOverDateTime": ""

},

"SHIPPING\_BILL": [],

"LOCATION\_DETAILS": [],

"XRAY\_DETAILS": [

{

"XRayDate": "08/03/2021 20:33",

"XRayMachine": "40011512",

"XRayBy": "XRAY05"

}

],

"ULD\_DETAILS": [

{

"ULDNo": "BT07IND:",

"ULDType": "BT",

"Status": "A",

"FlightNo": "6E9602",

"FlightDate": "10/03/2021"

}

],

"EGM\_DETAILS": [

{

"EGMNo": "341511",

"EGMYear": "11/03/2021",

"FlightNo": "6E23",

"FlightDate": "11/03/2021",

"ATD": " ",

"Commodity": "CONSOL COURIER",

"Packages": "24",

"GrossWeight": "464"

}

]

}

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

**Status Code 200**: cargo 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.

## ACMES/02

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **awbnumber** | Master Airway bill Number as available in ACMES system. | [0-9]{11} | Required | Max 11 |
| 2 | **hawb** | House Airway bill Number  as available in ACMES system. | ^[a-zA-Z0-9.]\*$ | Required | NA |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **AWB number and HAWB number** for which detail is required.
3. ACMES API will share details of cargo information which exist in ACMES system in JSON format.
4. ACMES Integration will add JSON in **response** key in response body.
5. ULIP system will provide the data in JSON Object format in response body.

**Example:**

AWB number **23552194682** and HAWB number **MUC75007115** is shared by ULIP system, then ACMES-integration will make a request to ACMES API.

**Request:**

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

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

{

"awbnumber": "23552194682",

"hawb":"MUC75007115"

}

**Curl URL**

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzMDU1MzM5NCwiYXBwcyI6ImRhdGFwdXNoIn0.GJP8YAJ5hpyMP7S0tgc5PpVz4tQyu3NUkTifrDwD5WWDF0QOlSrua5oi6tfYO4yCdMRiDVErD2nTn6fT5ByQog' \

--header 'accept: application/json' \

--header 'content-type: application/json' \

--data-raw '{

"awbnumber": "23552194682",

"hawb":"MUC75007115"

}'

For obtaining authentication token, refer [Section 1.5](#_Data_Transmission_&)

**Response**

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

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

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: awbnumber. Format should follow [09]{11}"

}

1. **Invalid HAWB number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: hawb. Format should follow ^[a-zA-Z0-9.]\*$"

}

1. **In case of AWB number does not exist in ACMES system**

{

"response": [

{

"response": {

"ImportTrackingData": {

"AWB\_DETAILS": null,

"IGM\_DETAILS": [],

"DO\_DETAILS": [],

"GP\_DETAILS": [],

"LOC\_DETAILS": []

}

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

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

{

"response": [

{

"response": {

"ImportTrackingData": {

"AWB\_DETAILS": null,

"IGM\_DETAILS": [],

"DO\_DETAILS": [],

"GP\_DETAILS": [],

"LOC\_DETAILS": []

}

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

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

{

"response": [

{

"response": {

"ImportTrackingData": {

"AWB\_DETAILS": {

"IgmNo": "1896697",

"IgmYear": "2021",

"AwbNo": "23552194682",

"HawbNo": "MUC75007115",

"ArrivedPackages": "1",

"ArrivedWeight": "70",

"ChargeableWeight": "192",

"DamagedPackages": "0"

},

"IGM\_DETAILS": [

{

"IgmNo": "1896697",

"IgmYear": "2021",

"FlightNo": "TK6448",

"FlightDate": "16/03/2021",

"SegregationDate": "16/03/2021 15:30",

"SegregationStatus": "DONE",

"ATA": "16/03/2021 04:45"

}

],

"DO\_DETAILS": [

{

"DOIssuedBy": "TURKISH AIRLINES INC.",

"DODate": "17/03/2021 12:02:21",

"HawbNo": "0",

"DOIssuedTo": "SUNRISE FREIGHT FORWARDERS PVT. LTD."

},

{

"DOIssuedBy": "SUNRISE FREIGHT FORWARDERS PVT. LTD.",

"DODate": "17/03/2021 12:34:28",

"HawbNo": "MUC75007115",

"DOIssuedTo": "REGENT GARAGE (P) LTD."

}

],

"GP\_DETAILS": [

{

"GatePassNo": "NN202103232098",

"DeliveryPackages": "1",

"GeneratedOn": "23/03/2021 11:48:00",

"DocStatus": "DELIVERED"

}

],

"LOC\_DETAILS": []

}

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

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

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

**Body:**

{

"awbnumber": "40689348000"

}

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 vehicle details as follow -

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

***--header 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzMDU1MzM5NCwiYXBwcyI6ImRhdGFwdXNoIn0.GJP8YAJ5hpyMP7S0tgc5PpVz4tQyu3NUkTifrDwD5WWDF0QOlSrua5oi6tfYO4yCdMRiDVErD2nTn6fT5ByQog' \***

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

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

***--data-raw '{***

***"awbnumber": "40689348000"***

***}'***